### Delaval, Jan

From:

Huynh, Phuong N.

Sent:

Tuesday, April 22, 2003 8:48 AM

To:

Subject:

Delaval, Jan RE: RE: 09/674,716

Good morning Jan,

The correct USSN is 09/674,716. Sorry about that. How are you doing otherwise? Neon.

----Original Message----

From:

Delaval, Jan

Sent:

Tuesday, April 22, 2003 7:10 AM

To: Subject: Huynh, Phuong N. RE: RE: 09/555,964

no CRF for this case number

http://expoweb1:8001/cgi-bin/expo/BioInfo/bioquery.pl?APPL\_ID=09555964

----Original Message----

From: Huynh, Phuong N.

Sent:

Monday, April 21, 2003 1:37 PM

To:

Delaval, Jan Subject: RE: 09/555,964

Jan,

Please search peptides of SEQ ID NO: 3, 5, 7, 9, 11, 13(1, 2, 17, 18 against commercial and interference databases.

Thanks, Neon Art unit 1644 Mail 9E12 Tel 308-4844

Jan Delaval Reference Librarian Biotechnology & Chemical Library CM1 1E07 - 703-308-4498 jan.delaval@uspto.gov

~••			
	•		
		<b>.</b>	

Access DB# 91996

## SEARCH REQUEST FORM

Scientific and	Technical Information Center	
Requester's Full Name:	Examiner #:	Date:
Requester's Full Name:  Art Unit: Phone Number 30	Serial Number:	
Mail Box and Bldg/Room Location:	Results Format Preferred (circle):	PAPER DISK E-MAII
If more than one search is submitted, please	e prioritize searches in order of ne	ed. *********
Please provide a detailed statement of the search topic, an Include the elected species or structures, keywords, synor utility of the invention. Define any terms that may have a known. Please attach a copy of the cover sheet, pertinent	nd describe as specifically as possible the sub nyms, acronyms, and registry numbers, and c a special meaning. Give examples or relevan	ject matter to be searched.
Title of Invention:		
Inventors (please provide full names):		
Earliest Priority Filing Date:		
*For Sequence Searches Only* Please include all pertinent in		tent numbers) along with the
appropriate serial number.		
•		
•		
•		
	Jan Dela Reference Li Biotechnology & Ch CM1 1E07 – 703 jan.delaval@us	brarian emical Library -308-4498
	•	
•		
•		

STAFF USE ONL Type of Search Vendors and cost where applicable Searcher: NA Sequence (#)\_ Searcher Phone #: Dialog AA Sequence (#)\_ Searcher Location: Structure (#) Questel/Orbit 41200 Date Searcher Picked Up: Bibliographic Dr.Link 4126/8 Date Completed: Litigation Lexis/Nexis\_ Searcher Prep & Review Time: Fulltext Sequence Systems 60 Clerical Prep Time: Patent Family WWW/Internet (10 Online Time: Other Other (specify) PTO-1590 (8-01)

					٠
					,
				•	
		·			
			·		

GenCore version  $5.1.4\_p5\_4578$  Copyright (c) 1993 - 2003 Compugen Ltd.

h, using sw model	April 26, 2003, 04:53:31; Search time 828.199 Seconds (without alignments) 14583.043 Million cell updates/sec	US-09-674-716B-1 415 1 aagctttacagttactcagctggggccaagggacactagt 415
search, using sw	1 26, 2003, 04:53:	US-09-674-716B-1 415 1 aagctttacagttactcagc
OM nucleic - nucleic search, using sw model	Run on: April	Title: US-09 Perfect score: 415 Sequence: 1 aag

Scoring table: IDENTITY\_NUC Gapop 10.0 , Gapext 1.0 Searched: 2054640 segs, 14551402878 residues

Total number of hits satisfying chosen parameters: . Minimum DB seq length: 0 Maximum DB seq length: 2000000000

4109280

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
Listing first 45 summaries
GenEmbl:\*
1: 9b\_ba:\*
2: 9b\_btg:\*

24: em\_bh:\*
25: em\_pl:\*
26: em\_cr:\*
27: em\_sts:\*
29: em\_un:\*
30: em\_htg\_hum:\*
31: em\_htg\_other:\*
32: em\_htg\_pln:\*
33: em\_htg\_pln:\*
34: em\_htg\_pln:\*
35: em\_htg\_pln:\*
36: em\_htg\_pln:\*
36: em\_htg\_other:\*
37: em\_htg\_other:\*
38: em\_htg\_other:\*
39: em\_htg\_other:\*
31: em\_htg\_other:\*
32: em\_htg\_other:\*
33: em\_htg\_other:\*
34: em\_htg\_other:\*

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Dog of the state o	nordinged	neuc	AAUTUO43 Sequence BC031470 Mis miscii	ence	U05819 Mus musculu	AB050074 Mus muscu M17726 Mouse In fa	AJ223543 Mus muscu	M32044 Mouse Ig ac	M32045 Mouse Ig ac M32047 Mouse Ig ac	AC073590 Mus muscu	M32049 Mouse Ig ac	X76014 Mus musculu	M32046 Mouse Ig ac	M32050 Mouse Ig ac	M59922 Mouse 19 ne M59921 Mus musculu	M32051 Mouse Ig ac	X66664 M.musculus	Ai090914 Mus muscu M98041 Mouse Ta re	X03398 Mouse gene	E15671 DNA encodin	AF132844 Mus muscu M15232 Monse Tam r	AR02257 Sequence	ARO37587 Sequence	ARI78045 Sequence	S73907 Ig V kappa	M17167 Mouse Ig mu	AF242213 Mus muscu	722546 Mouse antib	AR108682 Sequence	U73591 Mus musculu	AC073561 Mus muscu	S65761 anti-colore	AF178605 Mus muscu	AF178606 Mus muscu	AF1/850/ Mus muscu X90885 M.musculus				linear PAT 06-SEP-2000				rtebrata;	, murrage, murringe,	Ellis, J.H. and Shearin, J. and their therapeutic uses	
IES						×	۲. ۲							r	<b>7</b> -			æ			_	•													0	SINE			DINA 79				Craniata; Ve	nu 60 man	Rapson, N.T., ives thereof,	:666
SUMMARIE		AX010600	BC031470	AX080317	MMU05819	MUSIGHEZ	MMU22354	MUSIGHRI	MUSIGHRW	AC073590	MUSIGHRY	MMIGM18	MUSIGHRV	MUSIGHRZ	MUSIGHAA	MUSIGHSA	MMHCVR AVORORIA	MUSIGHBMA	MMIGVH22	E15671	MUSIGKCL	AR022572	AR037587	AK1/8045 AY090913	873907	MUSIGHHT	AF242213	MMIGHVEA	AR108682	MMU73591	AC0/3561	S65761	0987	AF178606	CVR1	ALIGNMENT			415 bp E W0995867	) )			Chordata; C		S.J., Raps erivatives	1 18-NOV-1999;
E C	;	<u>ب</u> و	10	9	10	10	10	10	10	7	10	10	10	9,0	10	10	010	10	10	9	10	9	φι	٦٥	10	10	0 [	010						10	10				Patent		9741				we, g	Α-
Length		415	1658	453	405	399	396	314	314	208357	313	345	306	314	417	305	318	417	300	357	363	403	403	351	351	427	351	376	360	č	180081	~	345	345	357				from Pa		GI:999	. w	0 +	Ţ	Υ. το	9958679-A
% Query Match	- :	77	i				•	_					Ψ,	D (C		w.	D (1		Ψ,	ω α	υ		ω υ	o w	Ψ	w ·	ט ע	Φ (	0	W U	o w	9	6	<b>0</b> 0					AX010600 Sequence 1	AX010600	10600.1	se mouse.	aryota;	(bases	Bonnetoy, J. Antibodies	ent: WO
core		415	10.6	10.4	95.6	92.6	89.8	283 200 200 200	87.4	86.4	84.4	83.8	83.2	78.6	78.6	78.4	73.6	73.4	72.4	272	70.4	69.4	69.4	269	68.8	9.68	2 d d d	58.4	8.79	67.2	0 a	56.2	55.6	9.0	92.0				AX0 Seq	AXO	AXO.	house Mus m	Euk	Η.	Ant	Pati
. v	- !																																				,	ч <u>о</u>	NOI	NO	_ s	II SM		日 日 日 日	X .	IAL
Result No.		υ 		41	א ת	^	ω (	υ C	11	c 12	13 14	15	16	18	13	20	22	23	24	22	27	28	29	31	32	33	ب 4 تر	36	37			41	42	4 4	45			RESULT 1 AX010600	LOCUS DEFINITION	ACCESSION	VERSION KEYWORDS	OURCE ORGANISM		FEREN	TITLE	JOURN
			•			_																									ر 						_	RE	DE	AC	VE KE	SO		RE	-	-

ö

source

FEATURES

Match

Query

ò a ò g ò q ò q ò g

BASE COUNT ORIGIN

```
can be found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ROD 07-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Clone distribution: MGC clone distribution information can be for
through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Series: IRAK Plate: 30 Row: h Column: 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submission
Submitted (06-JUN-2002) National Institutes of Health, Mammallan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Hale, S.M., Yoon, V.S., Kowis, C.R., Lawrence, S., Martin, R.G., Muzny, D.M. Richards, S., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                GATTGAAATCTGATAATTATGCAACACTTATGCGGAGTCTGTGAAAGGGAAGTTCACCA 300
                                                                                                                                                                                                                                                                                                                                                                                                             116
                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                 TTGTTCTTTTAAAAGGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGG 120
                                                                                                                                                                                                Gaps
                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HOUSIA70 1658 bp mRNA linear ROD 07-AU Mus musculus, Similar to immunoglobulin heavy chain 1 (serum IGG2a), clone MGC:25748 IMAGE:3991558, mRNA, complete cds. BC031470
                                                                                                                                                                                                                                                                                                             ACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGGGGGCTTGAGTGGGTTGCTGAAATTA
                                                                                                                                                                                                                                                                                                                                                                                                 TCTCAAGAGATGATTCCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAAGAGCTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Baylor College of Medicine Human Genome
                                                                                                              1 AAGCTTTACCAGTTACTCAGCACACAGGACCTCACCATGGATTTTGGGCTGATTTTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361 ACAGIGGAGITIATIACIGIACAGATITCAIAGACIGGGGCCAAGGGACACIAGT 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACAGTGGAGTTTATTACTGTACAGATTTCATAGACTGGGGCCAAGGGACACTAGT 1
                                                                              ö
                                           Length 415;
                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequencing Center
Center code: BCM-HGSC
Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: amg@bcm.tmc.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NIH-MGC Project URL: http://mgc.nci.nih.gov
                                               415; DB 6; I
No. 2.9e-113;
                                                                                  ö
ų,
                                                                                Mismatches
111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Muse mouse.
Mus musculus
Eukaryota; Metazoa; Chordata;
                                                 Score
Pred.
 ь
92
                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BC031470.1 GI:21594582
                                                 100.0%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mammalia; Eutheria; F
1 (bases 1 to 1658)
   O
                                                                                  Conservative
110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Strausberg, R.
                                                                  Similarity
   ø
 118
                                                                                  415;
                                                 Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
   COUNT
                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                  61
                                                                                                                                                                                                                    355
                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                   295
                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 3
BC031470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
BASE CO
ORIGIN
                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                               g
                                                                                                                                                                                                                  qq
                                                                                                                     δ
                                                                                                                                                                                  QΥ
                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (bases 1 to 415)

Bonnefoy, Jr., Crowe, S. J., Rapson, N. T., Ellis, J. H. and Shearin, J. Antibodies to cd23, derivatives thereof, and their therapeutic uses Patent: WO 9958679-A 46 18-NOV-1999;
BONNEFOY JEAN TYES MARCEL PAUL (FR); CROWE SCOTT JAMES (GB); RAPSON NICHOLAS TIMOTHY (GB); GLAXO GROUP LTD (GB); ELLIS JONATHAN HENRY (GB); SHEARIN JEAN (US)
                                                                                                                                        PAT 06-SEP-2000
                                                                                                                                                                                                                                                                                                                                    ő
   ; CROWE SCOTT JAMES (GB); RAPSON LTD (GB); ELLIS JONATHAN HENRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 GATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGAAGTTCACCA 300
                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTCAAGAGATGATTCCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAAGAGCTGAAG
                                                                                                                                                                                                                                                                                                                                                                     1 AAGCTTTACAGTTACTCAGCACACAGGACCTCACCATGGATTTTGGGCTGATTTTTTA
                                                                                                                                                                                                                                                                                                                                                                                     1 AAGCTTTACAGTTACTCAGCACACAGGACCTCACCATGGATTTTGGGCTGATTTTTTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 TGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAGGGGCTTGAGTGGGTTGCTGAAATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGAAGTTCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTCAAGAGATGATTCCAAAAGTCGTCTTACCTGCAAATGAACAGCTTAAGAGCTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAGTGGAGTTTATTACTGTACAGATTTCATAGACTGGGGCCAAGGGACACTAGT
                                                                                                                                                                                                                                                                                                  Length 415;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                    Score 415; DB 6; L
Pred. No. 2.9e-113;
                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                   /note="unnamed protein product"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA
   BONNEFOY JEAN YVES MARCEL PAUL (FR);
NICHOLAS TIMOTHY (GB); GLAXO GROUP LT
(GB); SHEARIN JEAN (US)
LOCATION/QUALIFIERS
                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                415 bp
Sequence 46 from Patent W09958679.
AX010643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Mus musculus"
/db_xref="taxon:10090"
                                                                                /organism="Mus musculus"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AX010643.1 GI:9997452
                                                                                                                                                                                                                                                                                                    100.0%;
ilarity 100.0%;
Conservative 0
                                                                                                                       <3. .>413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         house mouse.
                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                        111
                                                                                                                                                                                                                                                                                                                                       Matches 415;
```

181 181 241

121

301 301

ò

squrce

FEATURES

DEFINITION ACCESSION VERSION

ORGANISM

KEYWORDS SOURCE

AUTHORS TITLE JOURNAL

REFERENCE

RESULT 2 AX010643/c LOCUS

361

a

361

ð

g

~

ö

Gaps

ö

Indels

Length 453;

94 65

```
mRNA linear ROD 22-FEB-1994 chain V-JH2 region mRNA, partial
                                              Trificial sequences.

(bases 1 to 453)

Reliter, R., Witte, O., Saffran, D.C. and Jakobovits, A.

Psca: prostate stem cell antigen and uses thereof

Patent: WO 0105427-A 14 25-JAN-2001;

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA (US); Urogenesys, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              155 AGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAA 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    95 GCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGT 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Yong,T.J., Chan,S. and Ren,E.
Identification of a new VH J606 family member utilized in the
murine immune response to Hepatitis B surface antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
Submitted (27-3AW-1994) Ee-Chee Ren, Microbiology and W.H.O.
Immunology Center, National University of Singapore, Faculty
Medicine, Singapore, 0511, Republic of Singapore
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             35 CATGGATTTTGGGCTGATTTTTTTTTTTGTTCTTTTAAAAGGGGTCCAGAGTGAAGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGTCTCTACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        246 GGAGTCTGTGAAAGGGAAATTCACCATCTCAAGAGATGATTCCAGAAGTCGTCTCTACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 310.4; DB 6;
Pred. No. 6.1e-82;
0; Mismatches 26;
                                                                                                                                                                                                                                                                                                                     2H9"
                                                                                                                                                                                                                                                                          construct"

    453
    /organism="synthetic constr/db_xref="taxon:32630"
    /note="MONOCLONAL ANTIBODY

                                                                                                                                                                                                                                                                                                                                                  123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Mus musculus"/strain="BALB/c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MMU05819 405 bp
Mus musculus BALB/c Ig mu heavy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                            122 g
                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                       74.8%;
92.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        005819
005819.1 GI:456279
     synthetic construct. synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 405)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 405)
                                                                                                                                                                                                                                                                                                                                               93 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                  ದ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ren, E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       326;
                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S:
Matches 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
     SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE AUTHORS
                                                                                                 AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                               BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 5
MMU05819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             /protein_id="Aah31470.1"
/db_xref="G1:21594583"
/db_xref="G1:21594583"
/db_xref="G1:21594583"
/db_xref="G1:21594583"
/db_xref="G1:21594583"
/db_xref="G1:21594583"
/db_xref="G1:21594583"
/db_xref="G1:21594583"
/db_xref="G1:21594587"
/db_xref="G1:21594587"
/db_xref="G1:21594587"
/db_xref="G1:21594587"
/db_xref="G1:21594587"
/db_xref="G1:21587"
/d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PAT 22-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                                                                                                                                                /product-"Similar to immunoglobulin heavy chain 1 (serum Ig62a)"
                                                                                                                                                                                                                    /tissue_type="Mammary tumor metastatized to lung. Tumor arose spontaneously from a senescent normal mammary (clonal) outgrowth infected with the virus MMTV." /clone_lib="MOI_CGAP_Lu29" /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             367
This clone was selected for full length sequencing because it passed the following selection criteria: Hexamer frequency ORF analysis, Similarity but not identity to protein.

Location/Oualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     152 TGGAGGAFCCATGAAACTCTCCTGTGTAGCCTCTGGATTCACTTTCAGTAACTCCTGGAT 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             188 GTCTTGGGTCCGCCAGTCTCCAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAA 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              248 ATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAG 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      128 TGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGAT 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             68 TITAAAAGGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACC 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            32 ACACGGACACAACATTCACCATGGACTTGAGACTGAGCTGTGCTTTTATTATTGTTCT 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       122 GAACTGGGTCCGCCAGTCTCCAGAGAAGGGGCTTGAGTGGGTTGCTCAAATTAGATTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGATGATTCCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 10; Length 1658;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                49; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                         /map="CZECH II"
/clone="MGC:25748 IMAGE:3991558"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6e-82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 310.6; L
Pred. No. 5.6e-
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          336 t
                                                                                                                                                                                                                                                                                                                                            /note="Vector: pCMV-SPORT6'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     453 bp
from Patent W00105427.
                                                                                                                        /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AATTTATTACTGCACAAATGCTATGGACT 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTITATIACTGIACAGATITCATAGACT 396
                                                                                                                                            /db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          367 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AX080317.1 GI:13159779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NHHTTKSFSRTPGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 74.8%;
Best Local Similarity 87.4%;
Matches 340; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421 c
                                                                                                                                                                                                                                                                                                                                                                    .1448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AX080317
Sequence 14 f
AX080317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 4
AX080317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                      CDS
                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ
```

274 245 305

386 357 of

CDS

```
/product-"anti-dsRNa (RDV-RNA) antibody"
/protein_id="BAB87186.1"
/db_xref="G1:19909924"
/db_xref="G1:19909924"
/translation="MYLGLSCVFIVFLLKGVQSEVKLEESGGGLVQPGGSMKLSCVAS
GFTFGNYWMWNVRQPERGLEWVAETRLKSNNYATHYAESVKGRFTISRDDSKSSVYL
OMNNLRAEDTGIYYCTRLVWSNRYYFDYWGQGTTLTVSSESGSFPNVFPLVSL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MUSIGHFZX 399 bp mRNA linear ROD 27-APR-1993
Mouse Ig family J606 active mu-chain V-J2 region anti-dextran mRNA,
hybridoma 58.2C10.3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Murinae; Mus 1 (bases 1 to 399)
Akolkar,P.N., Sikder,S.K., Bhattacharya,S.B., Liao,J., Gruezo,F.,
                                                  Direct Submission
Submitted (17-OCT-2000) Yoshichika Kitagawa, Akita Prefectural
University, Biotechnology Institute; minami 2-2, Ogata, Akita
010-0444, Japan (E-mail:kitagawa@agri.akita-pu.ac.jp,
URL:www.akita-pu.ac.jp/, Tel:81-185-45-2026(ex.400),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAGAGAGGGGCTTGAGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCTGTGTTGCCTCTGGATTCACTTTCAGTAACTACTGGATGAACTGGGTCCGCCAGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C-region; J-region; V-region; immunoglobulin heavy chain; immunoglobulin mu-chain; processed gene.
Mouse (C57BL) hybridoma cell line 58.2C10.3, cDNA to mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 477;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 295.2; DB 10;
Pred. No. 2.2e-77;
0; Mismatches 38;
                                                                                                                                                                                                      /strain="BALB/c"
/db_xref="taxon:10090"
/cell_line="hybridoma 10G1"
1. .477
                                                                                                                                                                                                                                                                                                                                                                                                                                                 130
 Published Only in Database (2002) 3 (bases 1 to 477)
                                                                                                                                                                                          /organism-"Mus musculus"
                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                 119 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                          11. .>475
/gene="VH10G1"
                                                                                                                                                                                                                                                                            /gene="VH10G1"
                                                                                                                                                                                                                                                                                                                                  /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 71.1%;
89.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          M17726
M17726.1 GI:195318
                                                                                                                                                                                                                                                                                                                                                                                                                                                 102 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                   Kitagawa, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ๙
                                                                                                                                                                                                                                                                                                                                                                                                                                                  126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                 BASE COUNT
ORIGIN
                 REFERENCE
AUTHORS
                                                   TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                327
                                                                                                                                                                                                                                                              gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MUSIGHEZX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                              CDS
                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                /codon_start=1
/product="Ig mu heavy chain V-JH2 region"
/product="Ig mu heavy chain V-JH2 region"
/protein_id="AAA1613"
/db_xref="Ig:466280"
/translation="MOLRLSCAFIIVLLKGVQTEVILEESGGGLVHPGGSMKLSCVGS
SFTFSDYWMTWVRQSPEKGLEWIAEIRLKSDNFATYYAESLKGRFTISRDDSKSRLYL
QMNSIGTEDFGIYYCTAGTYDYWGQGTTLTVSS"
                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AB050074 11near ROD 02-APR-2002 Mus musculus VH10G1 mRNA for anti-dsRNA (RDV-RNA) antibody, partial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus (strain:BALB/c) cell_line:hybridoma 10G1 cDNA to mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                             113 AGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTTT 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        352
                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            233 TGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTTCACCATCTCAAGAGATGATTCCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          264 GTTCACCATCTCAAGAGATGATTCCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              173 CAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAAGGGGCTTGAGTGGGTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                             ó
                                                                                                                                                                                                                                                                                                                                                                                             DB 10; Length 405;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kitagawa,Y., Matsumoto,T., Okuhara,E. and Shikata,E.
Immunogenicity of rice dwarf virus-ribonucleic acid
Tohoku J. Exp. Med. 122 (4), 337-343 (1977)
                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                             24;
                                                                                                                                                                                                                                                                                                                                                                                           Score 295.6; DB 1
Pred. No. 1.6e-77;
0; Mismatches 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kitagawa,Y.
anti-dsRNA (RDV-RNA) Ab VH region-VH10G1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       353 AGCTGAAGACAGTGGAGTTTATTACTGTACAGAT 386
                                                                                                                                                                                                                                                                                                                                            116
                         /clone="VH11.1"
/cell_line="3510/1"
/cell_type="hybridoma"
/clone_lib="3510/1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          324 AACTGAAGACACTGGAATTTATTACTGTACGCT
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                   /product="unnamed"
58. 366
367. 405
                                                                                                                                                                                                                                                                                                                           region"
102 g
                                                                                                                                                                                                                                                                                                                                              Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AB050074.1 GI:19909923
                                                                                                                                                                                                                                                                                                                                                                                           71.2%;
92.8%;
                                                                                                                                                                                                                                                                                                          367. .405
/note="JH2
                                                                                                                                                                                                                                                                                                                                         82 c
                                                                                                                                                                                                                                                                                                                                                                                         Query Match 71.2
Best Local Similarity 92.8
Matches 310; Conservative
                                                                                                                                                                                                                                     .57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus
                                                                                                                                                                                                                                                                                                                                            ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AB050074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AB050074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       918970
                                                                                                                                                                                                                                        sig_peptide
mat_peptide
                                                                                                                                                                                                                                                                                                          J_segment
                                                                                                                                                                                                                                                                                          V_reqion
                                                                                                                                                                                                                                                                                                                                         BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                           53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
```

ò 셤 ð g ò a ò g à 유 ò 엄

ö

67

206

187

247

307

VERSION KEYWORDS SOURCE

9 AB050074 RESULT

```
MUSIGHRT 314 bp mRNA linear ROD 27-APR-1993
Mouse Ig active H-chain (GAC1) mRNA V-region, from hybridoma
68.2D8, partial cds.
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus. I. (bases I to 396)

Akolkar, P. N., Sikder, S. K., Bhattacharya, S. B., Liao, J., Gruezo, F., Morrison, S. L. and Kabat, E. A.

Different VL and VH germ-line genes are used to produce similar combining sites with specificity for alpha(1---6)dextrans
J. Immunol. 138 (12), 4472-4479 (1987)
                                                                                                                                                                                                                                                                                 the IMGT project.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     84 AGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTTGCTTTCTGGATTCAGTTT 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGAA 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTTCACCATCTCAAGAGATGATTCCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAAG 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mouse antibody response to group A streptococcal carbohydrate
J. Immunol. 143 (12), 4213-4220 (1989)
90079033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     V-region; immunoglobulin heavy chain; processed gene.
Mouse (strain A/J), cDNA to mRNA, anti-GAC hybridoma 68.2D8.
                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="immunoglobulin heavy chain variable region"
68 c 111 g 107 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            113 AGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             173 CAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAAGGGGCTTGAGTGGGTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 396;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 289.8; DB 10; Length
Pred. No. 8.9e-76;
0; Mismatches 27; Indels
                                                                                                                                                                                                                                                                           supported by BIOMED and BIOTECH programs part of t
Automatically created by DNAPLOT version: 2.0 (1)
http://www.genetik.uni-koeln.de/dnaplot.
Location/Qualifiers
1. 396
//organism="Mus musculus"
//db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 314)
Jarvis, C.D., Cannon, L.E. and Stavnezer, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCTGAAGACAGTGGAGTTTATTACTGTACAGA 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTGAAGACACTGGAATTTATTACTGCTCAGA 356
                                                                                                                                                                                                                      Constant region is IgM Entered manually from publication
                                                                                                                                                                                                    Sequence is from C57BL/6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Match 69.8%;
Local Similarity 91.9%;
Nes 306; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:195969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ø
                                                                                                                                                                                                                                                             Figure 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   M32044.1
                                                                                                                                                                                  2438345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2512352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  M32044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                            MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
MEDLINE
                                                REFERENCE
                                                              AUTHORS
                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 9
MUSIGHRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                     TITLE
                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δý
                                                                                                                                                                                                                                                                                                                                                                                                                           /translation="MDLRLSCAFXIIVLLKGVQSEVKVEESGGGLVQPGGSMKLSCVASGFSFSNYWNNWVRQSPEKGLEWVAQIKLKSDNYATHYAESVKGRFTMSRDDSKSSVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear ROD 02-DEC-1998
chain variable sequence:
V region DNA, partial
                                                                                                             Akolkar, P.N., Sikder, S.K., Bhattacharya, S.B., Liao, J., Gruezo, F., Morison, S.L. and Kabat, E.A.
Errata: Different V-L and V-H germ-line genes are used to produce similar combining sites with specificity for alpha-(1->6) dextrans J. Immunol. 139, 3911-3911 (1987)
  Morrison, S.L. and Kabat, E.A.
Different VL and VH germ-line genes are used to produce similar combining sites with specificity for alpha(1----6)dextrans
J. Immunol. 138 (12), 4472-4479 (1987)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         112 GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  116 TCAGTAACTACTGGATGAACTGGGTCCGCCAGTCTCCAGAAAAGGGGCTTGAGTGGGTTG 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      172 TCAGIGGCTACTGGAIGICTIGGGICCGCCAGICTCCAGAGAAGGGGCTIGAGIGGGITG 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      292 AGTICACCATCICAAGAGAIGATICCAAAAGICGICICIACCIGCAAAIGAACAGCIIAA 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   266 GGTTCACCATGTCAAGAGATGATTCCAAAAGTAGTGTCTACCTGCAAATGAGCAACTTAA 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                52 TITITITITATIGITCITITAAAAGGGGTCCAGAGIGAAGTGAAGCTIGAGGAGTCTGGAG 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps

    .60
    /note="Ig mu heavy chain V-J2-region signal peptide"
61. ,>399

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AJ223543.1 GI:2791973
antigen receptor; immunoglobulin; immunoglobulin heavy chain; immunoglobulin superfamily; variable region.
Mus musculus.
Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 292.6; DB 10; Length 399;
Pred. No. 1.3e-76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /product="Ig mu heavy chain V-J2-region"
70 c 109 g 106 t 3 others
                                                                                                                                                                                                                                                                                                                                                /note="Ig mu heavy chain V-J2-region"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MMU223543 396 bp DNA
Mus musculus gene for immunoglobulin heavy
58.2C10.3 immunoglobulin kappa light chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOMSNIRAEDIGIYYCSEENWDQFDYWGQGI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         352 GAGCTGAAGACAGTGGAGTTTATTACTGTACAGA 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                   /organism="Mus musculus"
/db_xref="taxon:10090"
1. .>399
                                                                                                                                                                                                                                                                                                                                                                                      /protein_id="AAA38252.1"
/db_xref="G1:195319"
                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 70.5%;
Best Local Similarity 91.9%;
Matches 307; Conservative C
                                                                                                                                                                                                                                                                           1. .399
                                                                                                                                                                                                                                     revises [1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cds. rearranged.
AJ223543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chromosome 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ıc
                                                                          87224123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               111
                                                                                               2438345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mat_peptide
                                                                                                                                                                                                              J. [2]
                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 8
MMU223543
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
                                                                          MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                326
                                                                                                                 REFERENCE
                                                                                                                                 AUTHORS
                                                                                                                                                                                                            JOURNAL
                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                CDS
                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
                                                                                                                                                                        TITLE
                    TITLE
                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Db
```

δ

δ

δ

ò

ò

ò

ö

172

83

232

263

```
ROD 27-APR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 314)
Jarvis, C.D., Cannon, L.E. and Stavnezer, J.
Jarvis, C.D., Cannon, L.E. and Stavnezer, J.
Jinmunol. 143 (12), 4213-4220 (1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGAT 135
                                                                 CCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGG 195
                                                                                                                                                                                                                 316 CCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATT 375
                                                                                                                                                                                                                                                                                76 GGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGAT 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           136 CCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGG 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62 CCATGAAACTCTCCTGTGTTGCCTCTGGATTCACTTTCAGTAACTACTGGATGTACTGGG 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            256 ATTATGCAACACATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATT 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         182 ATTATGCAACACATTATGCGGAGTCTGTGAAAGGGAGGTTCACCATCTCAAGAGATGATT 241
                                                                                62 CCATGAAACTCTCCTGTGTTGCCTCTGGATTCACTTTCAGTAACTACTGGATGAACTACTGGG 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 GGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGAGGAGCTTGGTGCAACCTGGAGGAT 61
                                                                                                                                                                                                                                                                                                                                                                                                                              Mouse Ig active H-chain (GAC1) mRNA V-region, from hybridoma 68.2C4, partial cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          M32047.1 GI:195972
V-region; immunoglobulin heavy chain; processed gene.
Mouse (strain A/J), cDNA to mRNA, anti-GAC hybridoma 68.2C4.
Mus musculus
                  2 GGGTCCAGAGTNAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGAT
                                                                                                                                                                                                 ATTATGCAACACTTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCGCCAGTCTCCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         69.3%; Score 287.4; DB 10; Length 314; 94.9%; Pred. No. 4.6e-75; Live 0; Mismatches 16; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1. 314
/organism="Mus musculus"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 297; Conservative
                                                                                                                                                                                                                                                                                                                              376 ACTGTACAGATTT 388
                                                                                                                                                                                                                                                                                                                                                302 ACTGCACAGATCT 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chromosome 12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            89 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              M32047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                 136 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
TITLE
JOURNAL
 92
                                                                                                                                                                                                 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                           MUSIGHRW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
 ò
                              q
                                                                 ŏ
                                                                                              Pb
                                                                                                                                ò
                                                                                                                                                               원
                                                                                                                                                                                                 δ
                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                              76 GGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGAT 135
                                                                                                                                                                                                                                                                                                             136 CCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGG 195
                                                                                                                                                                                                                                                                                                                              62 CCATGAAACTCTCCTGTGTTGCCTCTGGATTCACTTTCAGTAACTACTGGATGTACTGGG 121
                                                                                                                                                                                                                                                                                                                                                                             TCCGCCAGTCTCCAGAGAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATA 255
                                                                                                                                                                                                                                                                                                                                                                                                ATTATGCAACACATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATT 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATT 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             242 CCAAAAGTAGTGTCTACCTGCAAATGAACAGCTTAAGGGCTGAAGACACTGGAATTTATT 301
                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 (bases 1 to 314)
Jarvis, C.D., Cannon, L.E. and Stavnezer, J.
Mouse antibody response to group A streptococcal carbohydrate
J. Immunol. 143 (12), 4213-4220 (1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           V-region; immunoglobulin heavy chain; processed gene.
Mouse (strain A/J), cDNA to mRNA, anti-GAC hybridoma 68.3D3.
                                                                                                                                                                                                                                                                             2 GGGTCCAGAGTGAAGTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             182 ATTATGCAACACATTATGCGGAGTCTGTGAAAGGGAGGTTCACCATCTCAAGAGATGTT
                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 288; DB 10; Length 314;
Pred. No. 3e-75;
0; Mismatches 16; Indels (
                                                                                                                                                                           Score 289; DB 10; Length 314;
Pred. No. 1.5e-75;
0; Mismatches 15; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <1. .11
/note="Ig H-chain V-region intron"
                                                                         /note="Ig H-chain V-region intron" 12. .>314
                                                                                                             /note="Ig H-chain V-region, X"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="Ig H-chain V-region, X"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          82 t

    314
    /organism="Mus musculus"
    /db_xref="taxon:10090"

    314
    organism="Mus musculus"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         85 g
                                                                                                                              86 g
 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                              69.6%;
95.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         similarity 94.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        M32045.1 GI:195970
                                                                                                                                58 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          58 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12. .>314
                                                                                                                                                                                              Best Local Similarity 95.2 Matches 298; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTGTACAGATTT 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              302 ACTGCACAGATCT 314
                                                                                                                                              Chromosome 12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chromosome 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus
                                                                                                                                  ø
                                                                                                                                88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best, Local Simi
Matches 297;
                                                                                                                                                                                Query Match
                                                               intron
                                                                                                                              BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                          256
                                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
MEDLINE
                                                                                                 exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MUSIGHRU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                         QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
```

ö

a

ò

q

δ

```
misc_feature
                                                                                                                                      misc_feature
                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                           misc_feature
source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
MUSIGHRY
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ογ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŏλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QΥ
                                                                                                                                                                                                                                      DNA linear HTG 13-AUG-2002 RP23-206K17 strain C57BL/6J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (13-A0G-2002) Genome Therapeutics Corporation, 100 Beaver Street, Waltham, MA 02453, USA On Aug 13, 2002 this sequence version replaced gi:15208559.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
Submitted (25-JUN-2000) Genome Therapeutics Corporation, 100 Beaver
Street, Waltham, MA 02453, USA
3 (bases 1 to 208357)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Quality coverage: 7.7x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                          Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1 (bases 1 to 208357)
Smith,D.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequencing vector: NAA
Chemistry: Dye-terminator Big Dye; 100% of reads
Assembly program: Phrap; version 990315
Consensus quality: 205031 bases at least Q40
Consensus quality: 205095 bases at least Q30
Consensus quality: 206093 bases at least Q30
Insert size: 208000; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genome Therapeutics Corporation Sequencing Center: Mouse Genome
                                  242 CCAAAAGTAATGTCTACCTTCAAATGAACAGCTTAAGGGCTGAAGACACTGGAATTTATT 301
          316 CCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATT
                                                                                                                                                                                                                                                                                                            ACO73590.4 GI:22213159
HTG: HTGS_PHASE1; HTGS_DRAFT; HTGS_FULLTOP; HTGS_ACTIVEFIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NOTE: This is a 'working draft' sequence. It currently consists of 5 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center: Genome Therapeutics Corporation Center code: GTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: gtc-segcenter@genomecorp.com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1100: contig of 1100 bp in length
1201 2367: contig of 1167 bp in length
1202 2367: gap of unknown length
2467: gap of unknown length
2468 3522: contig of 1065 bp in length
3533 29528: contig of 28966 bp in length
3633 29528: contig of 28966 bp in length
9629 208357: contig of 178729 bp in length
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Web site: http://www.genomecorp.com/
                                                                                                                                                                                                                                 AC073590 DNA
Mus musculus chromosome 12 clone RP23-206K1
WORKING DRAFT SEQUENCE, 5 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Center project name: mg036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 (bases 1 to 208357)
Smith, D.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
                                                                                                                302 ACTGCACAGATTT 314
                                                                                         376 ACTGTACAGATTT 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence Data
                                                                                                                                                                                                                                                                                                                                                           house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1101
1201
2368
2468
3533
3633
29529
29629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Smith, D.R
                                                                                                                                                                                         RESULT 12
AC073590/c
                                                                                                                                                                                                                                 LOCUS
                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                 KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                  VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
```

```
Mouse Ig active H-chain (GAC1) mRNA linear ROD 27-APR-1993 66.4A10, partial cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 313)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DD 187539 ACCTGGAGGATCCATGAAACTCTCCTGTGTTGCCTCTGGATTCACTTTCAGTAACTACTG 187480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       187479 GATGAACTGGGTCCGCCAGTCTCCAGAGAGGGCTTGAGTGGGTTGCTCAAATTAGAT 187420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         245 GAAATCTGATAATTATGCAACACTTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTC 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65 TCTTTTAAAAGGGGTCCAGAGTGAAGTGAAGCTTTGAGGAGTCTGGAGGAGGCTTGGTGCA 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                V-region; immunoglobulin heavy chain; processed gene.
Mouse (strain A/J), cDNA to mRNA, anti-GAC hybridoma 66.4A10.
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Jarvis, C.D., Cannon, L.E. and Stavnezer, J.
Mouse antibody response to group A streptococcal carbohydrate
J. Immunol. 143 (12), 4213-4220 (1989)
90079033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Db 187419 GAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGAGGTTCACCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  125 ACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              185 GATGTCTTGGGTCCGCCAGTCTCCAGAGGGGCTTGAGTGGGGTTGCTGAAATTAGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 2; Length 208357;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                           404 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21; Indels
                                                                                                                                                                                                                              2468. 3532
/note="assembly_name:Contig10"
3633. 29528
/note="assembly_name:Contig12"
29629. 208357
/note="assembly_name:Contig13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 69.0%; Score 286.4; DB 2 Best Local Similarity 93.4%; Pred. No. 1.2e-74; Matches 299; Conservative 0; Mismatches 21
                                                                                                                                                                   /note="assembly_name:Contig2"
1201. .2367
/note="assembly_name:Contig8"
                                                                                                                                                                                                                                                                                                                                                                                                         40942 g 64723 t
/organism="Mus musculus"
/strain="C57BL/6J"
/dL_xref="taxon:10090"
/chromosome="12"
/clone="RP23-206K17"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:10090"
                                                                                                                      /clone_lib="RPCI-23"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Db 187299 TGGAATTTATTACTGCACAG 187280
                                                                                                                                                                                                                                                                                                                                                                             clone_end:SP6'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGAGTTTATTACTGTACAG 384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          M32049.1 GI:195974
                                                                                                                                               1. .1100
                                                                                                                                                                                                                                                                                                                                                                                                      60801
```

; 0

us-09-674-716b-1.rge

```
/product="immunoglobulin"
/protein_id="CAA53601.1"
/protein_id="CAA53601.1"
/db_xref="G1:1334076"
/translation="VKLVESGGGLVQPGGSMKLSCVASGFTFSSYWMSWVRQSPEKGLEWAEIKKSONYATHYAESVKGKFTISRDDSKSRLYLQMNSLRAEDTGIYYCTARLGDYWGQGTTLTVSS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
Submitted (02-NOV-1993) A. Cimanis, Biomedical Research and Study
Centre, 53 Krustpils Str., Riga LV-1065, LATVIA
Location/Qualifiers
   62 CCATGAAACTCTCCTGTGTGTGCTCTGGATTCACTTTCAGTAACTACTGGATGAACTGGG 121
                                                                  256 ATTATGCAACACATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATT 315
                                                                                                                                                                            90 GTGAAGCTTGAGGAGTCTGGAGGAGTGGTGCAACCTGGAGGATCCATGAAACTCTCC 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  150 rGrGrAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCA 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 TGTGTAGCCTCTGGATTTACTTTCAGTAGCTACTGGATGTCTTGGGTCCGCCAGTCTCCA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACACAT 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 GTGAAGCTGGTGGAATCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCC 60
                                                  TCCGCCAGTCTCCAGAGAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATA
                                                                                                                                Score 283.8; DB 10; Length 345;
Pred. No. 5.5e-74;
0; Mismatches 7; Indels 0;
                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                            345 bp mRNA X76014 X76014 G:416092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . 90 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /strain="BALB/c"
/db_xref="taxon:10090"
/clone="1-8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    68.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="Ig"
<1. .>345
/gene="Ig"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mammalia; Eutheria;
1 (bases 1 to 345)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 345)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 97.6
Matches 288; Conservative
                                                                                                                                                                                                                                           388
                                                                                                                                                                                                                                                            302 ACTGCACAGATCT 314
                                                                                                                                                                                                                                                                                                                                                                                                                     immunoglobulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus.
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cimanis, A.Y.
                                                                                                                                                                                                                                           376 ACTGTACAGATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cimanis, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                  KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               210 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                  196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene
                                                                                                                                                                                                                                                                                                                         RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                       MMIGM18
                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                              οy
                                                                              Q
                                                                                                            QY
                                                                                                                                             엄
                                                                                                                                                                             οy
                                                                                                                                                                                                        Dp
                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MUSIGHRX 314 bp mRNA linear ROD 27-APR-1993 MOUSE Ig active H-chain (GAC1) mRNA V-region, from hybridoma 65.183, partial cds. M32048.1 GI:195973
                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      V-region; immunoglobulin heavy chain; processed gene. Mouse (strain A/J),cDNA to mRNA, anti-GAC hybridoma 65.1B3. Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                            GGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGAT 135
                                                                                                                                                                                                                          CCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGG 195
                                                                                                                                                                                                                                                          CCATGAAACTCTCCTGTGTTGCCTCTGGATTCACTTTCAGTAACTACTGGATGTCCTGGG 121
                                                                                                                                                                                                                                                                                          255
                                                                                                                                                                                                                                                                                                         315
                                                                                                                                                                                                                                                                                                                                                                                                                    CCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATT 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 314)
Jarvis, C.D., Cannon, L.E. and Stavnezer, J.
Mouse antibody response to group A streptococcal carbohydrate
J. Immunol. 143 (12), 4213-4220 (1989)
2512352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 76 GGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGAT 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              136 CCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGG 195
                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                    2 GGTNCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGAGGTTGGTGCAACCTGGAGGAT
                                                                                                                                                                                                                                                                                          TCCGCCAGTCTCCAGAGAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATA
                                                                                                                                                                                                                                                                                                                                                      GGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 10; Length 314;
                                                                                               DB 10; Length 313;
                                                  1 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
/note="Ig H-chain V-region intron"
12. >313
/note="Ig H-chain V-region, X"
1 59 c 84 g 83 t 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="Ig H-chain V-region intron"
12. .>314
                                                                                             Query Match 68.5%; Score 284.4; DB 10; Best Local Similarity 94.5%; Pred. No. 3.6e-74; Matches 294; Conservative 0; Mismatches 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 68.5%; Score 284.2; DB 10; 94.2%; Pred. No. 4.2e-74; 1ve 0; Mismatches 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Ig H-chain V-region, X" 58 c 84 g 81 t

    .314
    /organism="Mus musculus"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    84 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 68.55
Best Local Similarity 94.25
Matches 295; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chromosome 12.
                                                               Chromosome 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTGCACAGAT 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTGTACAGAT 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    91 a
                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      intron
                                                  BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
                                                                                                                                                            9/
                                                                                                                                                                                                                          136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 14
MUSIGHRX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7
                                                                                                                                                                                                                                                        62
                                                                                                                                                                                                                                                                                                                                                      256
                                                                                                                                                                                                                                                                                                                                                                                    182
                                                                                                                                                                                                                                                                                                                                                                                                                  316
                                                                                                                                                                                                                                                                                                                                                                                                                                                  242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                        196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                            ð
                                                                                                                                                                                         g
                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

ROD 15-JUN-1999

ò

Gaps

; 0

```
Db 121 GAGAAGGGCTTGAGTGGATTGCTGAAATTAGATTGAAATCTGATAATTATGCAACACAT 180
```

Db 181 TATGCGGAGTCTGTGAAGGGAAGTTCACCATCTCAAGAGATGTTTTTTACTAAAAGTCGTCTC 240

Qy 330 TACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGGGGGGTTATTACTGTACAG

qq

Search completed: April 26, 2003, 06:31:00 Job time: 871.449 secs

	g to	
	·	
		•

BG967386

602832666

BG967834 (AM401500 t BF133700

BG967834 AW401500

AW504516

BG967386

AW402331 BG754897

AA472093 vh10a05.r BH021344 CT7-463K1

AA472093 BH021344

AW504516 UI-HF-BND
AW402331 UI-HF-BND
AW402331 UI-HF-BKD
BW754897 60714288
BØ711108 AGENCOURT
BF116408 USY97C02.Y
BØ711793 AGENCOURT
BG686641 602637877
BØ952498 AGENCOURT
BF181593 601808895
BF181593 601808895
BF763384 602144539
AW402433 UI-HF-BKD
AW402431 UI-HF-BKD
AW404015 UI-HF-BKD

BQ952498 BF181593 BG756192

BF663384 AW402433 AW404015 BG757291

AU080010

BQ711793 BG686641

602715276 UI-HF-BK0

602463849

AW402430 BG341370

BB842280 BB586011 BG684987 BQ707524

BB842280

BB586011 602636738

602916745

AGENCOURT

603617419

BM008425

BM818764 BG965016

K-EST0086

AGENCOUR

BG757291 BG34130 BG34130 BB842280 BB586011 BB586011 BG715221 BG715221 BM018221 BM018221 BM018221 BM018221 BM018221 BM018251 BM018251

602439914 K-EST0132

ALIGNMENTS

source

FEATURES

BQ937972 BF119726 BC011342 BB842247

. 9 Result

K-EST0086

نلا

```
BF163883 914 bp mRNA linear EST 30-OCT-2000 601772396F1 NCI_CGAP_Lu29 Mus musculus cDNA clone IMAGE:3991558 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                L Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.go.
Tissue Procurement: Glibert Smith, Ph.D.
Tissue Procurement: Glibert Smith, Ph.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://inage.llh.gov
Plate: LLAM9204 row: p column: 23
High quality sequence stop: 679.
I. 914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus subtractors Chordata; Craniata; Vertebrata; Euteleostomi; Mukangalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Musili (bases 1 to 914)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BF163883.1 GI:11044161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             house mouse.
66.6
65.9
64.1
559.6
533.7
                                                                      446.1
446.1
446.0
445.0
445.7
45.7
45.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BF16388;
276.2
273.4
266
247.4
                                         244.4
223
218.8
209
207.4
                                                                                           207.4
207.4
207.4
207.5
202.6
202.6
202.7
202.9
200.0
200.0
200.0
199.6
1199.6
1197.6
1197.6
1197.6
1197.6
1197.6
1197.6
1197.6
1197.6
1197.6
1197.6
                                                                                                                                                                                                                                                                                           193
192.8
192.4
191.4
191.1
190.8
190.8
189.4
188.6
188.6
                                                                                                                                                                                                                                                                                  193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BF163883
                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 1
 LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BF163883 601772396
BB842048 BB842048
BQ937972 AGENCOURT
BF119726 601758583
BC011342 Mus muscu
BB842247 BB842247
                                                                               (without alignments)
12240.775 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                  I aagetttacagttaetcage........tgggggecaagggaeactagt 415
                                                                   April 26, 2003, 04:55:21; Search time 549.077 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Description
                                                                                                                                                                                                         32308132
         GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                    16154066 seqs, 8097743376 residues
                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUMMARIES
                                                                                                                                                                                                                                                          Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BF163883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BB842048
                                                                                                                                                     IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      em_gss_mus:*
em_gss_other:*
                                                                                                                                                                                                                            length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gb_gss:*
em_gss_hum:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             em_gss_mam:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           em_gss_pro:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   em_gss_rod:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   em_gss_inv:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        em_gss_vrt:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             em_gss_pln:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 em_gss_fun:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1177
                                                                                                             US-09-674-716B-1
                                                                                                                                                                                                                                                                                                                       em_esthum: *
em_estin: *
em_estmu: *
em_estcov: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                          em_estfun:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     em_estom:*
                                                                                                                                                                                                                                                                                                                                                                em_estpl:*
em_estro:*
em_htc:*
gb_estl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                       gb_est4:*
gb_est5:*
                                                                                                                                                                                                                                                                                                                                                                                                       gb_est2:*
gb_htc:*
                                                                                                                                                                                                                                                                                                             em_estba:*
                                                                                                                                                                                                                                                                                                                                                                                                                             gb_est3:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  914
375
375
1039
548
1526
367
                                                                                                                                                                                                                                                                                                   EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 71.5
69.0
69.0
68.7
68.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sed
                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                296.8
286.2
286.2
285
285
284
278.2
                                                                                                                      Perfect score:
                                                                                                                                                                                                                             Minimum DB
Maximum DB
                                                 OM nucleic
                                                                                                                                   Sequence:
                                                                                                                                                                                     Searched:
                                                                                                                                                                                                                                                                                                   Database
                                                                     Run on:
```

```
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         e mouse tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             spleen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 323;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Atimura, T., Arakawa, T., Carninci, P., Furuno, M., Hanagaki, T., Akimura, T., Arakawa, T., Carninci, P., Furuno, M., Hanagaki, T., Hayatsu, N., Hiramoto, K., Hiraoka, T., Hirozane, T., Imotani, K., Ishii, Y., Ito, M., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Matsuyama, T., Nakamura, M., Nishi, K., Nomura, K., Numasaki, R., Okazaki, Y., Okido, T., Saito, R., Sakai, C., Sakai, K., Sakazume, N., Sasaki, D., Sato, K., Shibata, K., Shinaqawa, A., Shiraki, T., Soqabe, Y., Suzuki, H., Taqawa, A., Takakushai, F., Takaku-Akhaira, S., Tanaka, T., Tomaru, A., Toya, T., Watahiki, A., Yasunishi, A., Muramatsu, M. and Hayashizaki, Y.
                                                                                                                                                                                                                                                                                                                                                                                                    1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EST 21-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Laboratory for Genome Exploration Research Group, RIKEN Genomic Schences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
                                                                                                                                                                                      /note="Organ: lung; Vector: pCMV-SPORT6; Site_1: SalI; Site_2: NotI; Cloned unidirectionally. Primer: Oligo dT. Library constructed by Life Technologies. Investigator providing samples: Gibbert Smith, NIH"

228 c 265 g 201 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                    /tissue_type="spontaneous tumor, metastatic to mammary. Stem cell origin." /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60 TTGAGACTGAGCTGTGCTTTTATTATGTTCTTTTAAAAGGGGTCCAGAGTGAAGTGAAGC 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97 TTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAG 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BB842048 RIKEN full-length enriched, 6 days neonate spleen Mus musculus cDNA clone F430003E23 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                96
                                                                                                                                                                                                                                                                                                                                                                                                                                                37 TGGATTTTGGGCTGATTTTTTTTATTGTTCTTTTAAAAGGGGTCCAGAGTGAAGTGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               110 TTGAGGAGTCTGGAGGAGGAGGC-TGGTGCAACCTGGAGGATCCATGAAACTCTCTGTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 157 CCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGTCTCTACCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTCTGTGAAAGGGAGGTTCACCATCTCAAGAGATGATTCCAAAAGTCGTCTCTACCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGATTTCATAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGG
                                                                                                                                                                                                                                                                                                                                                                                                    1;
                                                                                                                                                                                                                                                                                                                                          Score 296.8; DB 12; Length 914;
Pred. No. 4.80-60;
0; Mismatches 32; Indels 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mRNA
/organism="Mus musculus"
/strain="C2ECH II"
/db_xref="taxon:10090"
/clone="INAGE:3991558"
/clone=lib="NCI_CGAP_Lu29"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            375 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Yoshihide Hayashizaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BB842048.1 GI:17042779
                                                                                                                                                                                                                                                                                                                                                      71.5%;
ilarity 90.8%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         house mouse.
                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BB842048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BB842048
                                                                                                                                                                                                                                                                                                                                                                                                 Matches 327;
                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                    BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 2
BB842048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                             ORIGIN
```

g

g õ g ò g ò g ò g

ò

```
/tissue_type="spleen"
/dev_stage="d_days neonate"
/dev_stage="d_days neonate"
/note="Vector: pSPORTI; Site_1: SalI; Site_2: NotI; This
clone is among a rearrayed set of 15,247 clones from 11
embryo cDNA libraries (including preimplantation stage
embryos from unfertilized egg to blastocyst, embryonic
part of ET.5 embryos, extraembryonic part of ET.5 embryos
, and EL2.5 female mesonephros/gonad) and one newborn
ovary cDNA library. Average insert size 1.5 kb. All
source libraries are cloned unfdirectionally with Oligo(dT
)-Not primers. References include: (1) Genome-wide
expression profiling of mid-gestation placenta and embryo
using a 15,000 mouse developmental cDNA microarray, 2000,
Proc. Natl. Acad. Sci. U S A, 97: 9127-9132; (2)
Large-scale cDNA analysis reveals phased gene expression
patterns during preimplantation mouse development, 2000,
Development, 127: 1737-1749; (3) Genome-wide mapping of
unselected transcripts from extraembryonic tissue of
7.5 day mouse embryos reveals enrichment in the t-complex
and under-representation on the X chromosome, 1998, Hum
Mol Genet 7: 1967-1978.
                                                                                                                                                                                                                                                                                                                                                                                Hayashizaki,Y.
RIKBN integrated sequence analysis (RISA) system--384-format
RIKBN integrated sequence analysis (RISA) system--384-format
sequencing pipeline with 384 multicapillary sequencer. Genome Res.
10 (11), 1757-1771 (2000)
Konno,H., Fukunishi,Y., Shibata,K., Itoh,M., Carninci,P., Sugahara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7;
Email: genome-res@gsc.riken.go.jp,
URL:http://genome.gsc.riken.go.jp,
Carninci,P., Shibata,Y., Hayatsu,M., Sugahara,Y., Shibata,K., Itoh
M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Normalization and subtraction of cap-trapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new
genes. Genome Res. 10 (10), 1617-1630 (2000)
wagi,K., Fujiwake,S., Tonoue,K., Togawa,M., Ohara,E.,
Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura
.S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ,Y. and Hayashizaki,Y. Computer-based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of nonredundant cDNA library. Genome Res. . 11 (2), 281-289 (2001) Please visit our web site (http://genome.gsc.riken.go.jp) for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone_lib="RIKEN full-length enriched, 6 days neonate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       128 TGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGAT 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68 TITAAAAGGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACC 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  188 GTCTTGGGTCCGCCAGTCTCCAGAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAA 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10 ACACGGACACAGAACATTCACCATGGACTTGAGACTGAGCTGTGCTTTTATTATTGTTCT 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 10; Length 375;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        43; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 286.2; DB 10
Pred. No. 1.6e-57;
0; Mismatches 43,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genet 7: 1967-1978
69 c 99 g 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="F430003E23"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="spleen"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualiflers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              69.0%;
88.0%;
```

Sat Apr 26 08:30:27 2003

```
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                84
                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                          VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                 RESULT 4
BF119726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                   rocus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                  qq
                                                                                                                      g
                                                                                                                                                           ŏ
                                                                                                                                                                                           Dp
                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                 BQ937972 1039 bp mRNA linear EST 21-AUG-2002 AGENCOURT_8952769 NCI_CGAP_CO24 Mus musculus cDNA clone IMAGE:6474993 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /strain="FVBN"
/db_xref="taxon:10090"
/dclone=lib="NuClGAP_024"
/lab_host="DH10B (Tl phage-resistant)"
/lab_host="DH10B (Tl phage-resistant)"
/note="Organ: colon: Vector: pCMV-SPORT6; Site_1: NotI:
Site_2: Sal1; cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.6 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
a 263 c 257 g 242 t 14 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 1039)
HT-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: cgapbs-remail.nih.gov
Tissue Procurement: The Cepko Laboratory
coun Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAMI4013 row: a column: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           112 GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCTGTGTAGCCTCTGGATTTACTT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   172 TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAAGGGGCCTTGAGTGGGTTG 231
                                                                                                                                          52 TTTTTTTTTATTGTTCTTTTAAAAGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAG 111
                                                                                      249 ATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGAGGTTCACCATCTCAAG 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                      ATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAG 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       308 AGATGATTCCAAAAGTCGTCTTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tch 69.0%; Score 286.2; DB 14; Length 1039; al Similarity 91.5%; Pred. No. 1.5e-57; 303; Conservative 0; Mismatches 28; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. .1039 /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     High quality sequence stop: 612.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                            BQ937972.1 GI:22353438
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 303; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                    house mouse.
                                                                                                                                                                                             AGTTTAT 374
                                                                                                                                                                                                                                 AATTTAT 375
                                                                                                                                                                                                                                                                                                                           BO937972
                                                                                                                                                                                                                                                                                                                                                                                                               EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                               368
                                                                                                                                                                                                                                  369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                    248
                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                     RESULT 3
BQ937972
                                                                                                                                                                                                                                                                                                                                                                                                             KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ρp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ω
                  Dp
                                                    δ
                                                                                    đ
                                                                                                                      ά
                                                                                                                                                    qq
                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                               g
```

```
Ĥ
                                                                                                                                                                                                                                                                                                                                                                    BF119726 548 bp mRNA linear EST 24-OCT-2000 601758583F1 NCI_CGAP_Mam5 Mus musculus cDNA clone IMAGE:3992829 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="Organ: mammary; Vector: pCNV-SPORT6; Site_1: Sall; Site_2: Not1; Cloned unidirectionally. Primer: Oligo dT. Library constructed by Life Technologies. Investigators providing samples: Lothar Hennighausen/Robin Humphreys, NIH."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       E 1 (bases 1 to 548)

SINH-MCC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

L Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov

Tissue Procurement: Lothar Hennighausen Ph.D., Robin Humphreys

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.lihi.gov

Plate: LLAM9208 row: e column: 22

High quality sequence stop: 539.

Location/Qualifiers

Irce

Location/Qualifiers

Irce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  172 TCAGTGGCTACTGGATGTTGGGTCCGCCAGTCTCCAGAGAGGGGCTTGAGTGGGTTG 231
                         112 GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTT 171
291
                                                                                            351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24 TATTCATAGTTTTTCTCTTAAAAGGTGTCCAGAGTGAAGTGAAGTTTGAGTGTGGAG
                                                                                               292 AGTTCACCATCTCAAGAGATGATTCCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAA
232 CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ,
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 285; DB 12; Length 548;
Pred. No. 3.1e-57;
0; Mismatches 40; Indels
                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:10090"
/clone="IMAGE:3992829"
/clone_lib="NCI_CGAP_Mam5"
/tissue_type="tumor, gross tissue"
/dev_stage="7 months"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   148 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Mus musculus"/strain="C57BL/6J"
                                                                                                                                                                                            352 GAGCTGAAGACAGTGGAGTTTATTACTGTAC 382
                                                                                                                                                                                                                      381 GAGCTGAAGACACTGGCATTTATTACTGTAC 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            138 g
                                                                                                                                                                                                                                                                                                                                                                                                               mRNA sequence.
BF119726
BF119726.1 GI:10958675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68.7%;
87.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 116 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 324; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
```

ij

232

à g ò

g

352 324 407 384

ò

q

q

```
Vortive (2001)
Contact: Yoshihide Hayashizaki
Sciences Center(GSC), Yokohama Institute
Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Tel: 81-45-503-922
Fax: 81-45-503-9216
Fax: 81-45-503-9216
Fax: 81-45-503-9216
Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K., Itoh
W., Konno, H., Okazaki, Y., Hayatsu, M. and Hayashizaki, Y.
Normalization and subtraction of cap-trapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new
genes. Genome Res. . 10 (10), 1617-1630 (2000)
wagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E.,
Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Akimura, T., Arakawa, T., Carninci, P., Furuno, M., Hanagaki, T.,
Hayatsu, N., Hiranoto, K., Hiracka, T., Tmotani, K., Ishii
Hayatsu, N., Hiranoto, K., Hiracka, T., Tmotani, K., Ishii
Y., Ito, M., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Matsuyama, T.,
Nakamura, M., Nishi, K., Nomura, K., Numasaki, R., Okazaki, Y., Okido, T.,
Salto, R., Sakai, C., Sakai, K., Sakazume, N., Sasaki, D., Sato, K.,
Shinapata, K., Shinaki, T., Soqabe, Y., Suzuki, H., Tagawa,
A., Takahashi, F., Takaku, Akahira, S., Tanaka, T., Tomaru, A., Toya, T.,
Watahiki, A., Yasunishi, A., Muramatsu, M. and Hayashizaki, Y.
RIKEN Bncyclopedia of Mouse Full-length cDNAs (Akimura, T., et al.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EST 21-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  112 GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTT 171
                                                                                                                                                                                                                                                   TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAGGGGGCTTGAGTGGGTTG 231
                                                                                                                                                                                                                                                                                                                                                      CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                           352 GAGCIGAAGACAGIGGAGIITAITACIGIA-----CAGAIIICAIAGACIGGGGCCAAG 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      spleen Mus
                                                                    Gaps
                                                                                                                                           ;
9
                Length 1526;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BB842247 RIKEN full-length enriched, 6 days neonate musculus cDNA clone F430004H07 5', mRNA sequence.
                                                                 Indels
                                                                 40;
          Score 284; DB 11;
Pred. No. 4.9e-57;
0; Mismatches 40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               367 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BB842247.1 GI:17042978
          68.48;
87.68;
                                                            Matches 324; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGACACTAGT 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              395 GGACTCTGGT 404
        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                        172
                                                                                                                                                                                                                                                                                                                                                                                                                                232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
BB842247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOURCE
                                                                                                                                                                 g
                                                                                                                                                                                                                     Qγ
                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HTC 07-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             pe found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /tissue_type="Mammary tumor. WAP-TGF alpha model. 7 months old, gross tissue." /clone_lib="NGI" (CGAP_Mam5" /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 1526)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Strausberg, R.
Direct Submission
Submitted (25-JUL-2001) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Clone distribution: MGC clone distribution information can be fou through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 23 Row: n Column: 19 This clone was selected for full length sequencing because it passed the following selection criteria: Hexamer frequency ORF analysis, Similarity but not identity to protein This clone has the following problem: incomplete processing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  X., Hulyk, S.W., Hale, S.M.,
S., Martin, R.G., Muzny, D.M.
                                                                               Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Lothar Hennighausen Ph.D., Robin Humphreys
144 TCACTAACTACTACATGAACTGGGTCCGCCAGTCTCCAGAGAAGGGGGCTTGAGTGGGTTG 203
                                                                                                                                                                                                                                                                                            292 AGTTCACCATCTCAAGAGATGATTCCAAAAGTCGTCTTACCTGCAAATGAACAGCTTAA
                                                    CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA
                                                                                                                                                                                                                                                              GAGCTGAAGACAGTGGAGTTTATTACTGTA-----CAGATTTCATAGACTGGGGCCAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LINL)
DNA Sequencing by: Baylor College of Medicine Human Genome
Sequencing Center
Center code: BCM-HGSC
Web site: http://www.hgsc.bcm.tmc.edu/cdna/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NIH-MGC Project URL: http://mgc.nci.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BC011342 1526 bp mRNA Mus musculus, clone IMAGE:3992829, mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="Vector: pCMV-SPORT6"
412 c 389 g 351 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gunaratne, P.H., García, A.M., Lu,
Yoon, V.S., Kowis, C.R., Lawrence,
Richards, S., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Mus musculus"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone="IMAGE:3992829"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /map="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BC011342
BC011342.1 GI:15030173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus
                                                                                                                                                                                                                                                                                                                                                                      GACACTAGT 415
                                                                                                                                                                                                                                                                                                                                                                                                    ||| || || || GACTCTGGT 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   374
```

DEFINITION

ACCESSION VERSION

KEYWORDS

SOURCE

RESULT 5 BC011342

Q

ò

ORGANISM

TITLE JOURNAL

REMARK COMMENT

REFERENCE AUTHORS source

FEATURES

BASE COUNT ORIGIN

```
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASE COUNT
ORIGIN
                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                      AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                           JOURNAL
COMMENT
                                                                                                                                    ACCESSION
                                                                                                                                                         VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 381
                                RESULT 7
BF581663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                               /dev.stage="spleen"
/dev.stage="spleen"
/dev.stage="f. days neonate"
/dev.stage="f. days neonate"
/note="vector: pSPORTI: Site_1: SalI; Site_2: NotI; This
clone is among a rearrayed set of 15,247 clones from 11
embryo cDNA libraries (including preimplantation stage
embryos from unfertilized egg to blastocyst, embryonic
part of ET.5 embryos, extraembryonic part of ET.5 embryos
/ and El2.5 female mesonephros/gonad) and one newborn
ovary CDNA library. Average insert size 1.5 kb. All
source library. Average insert size 1.5 kb. All
)-Not primers. References include: (1) Genome-wide
expression profiling of mid-gestation placenta and embryo
using a 15,000 mouse developmental cDNA microarray, 2000,
Proc. Natl. Acad. Sci. U S A, 97: 9127-9132; (2)
Large-scale cDNA analysis reveals phased gene expression
patterns during preimplantation mouse development, 2000,
Development, 127: 1737-1749; (3) Genome-wide mapping of
unselected transcribts from extraembryonic tissue of
7.5-day mouse embryos reveals enrichment in the t-complex
and under-representation on the X chromosome, 1998, Hum
wall cont.
Hayashizaki,Y.
Hayashizaki,Y.
Hayashizaki,Y.
Hayashizaki,Y.
Hikh integrated sequence analysis (RISA) system--384-format sequencing pipeline with 34 multicapillary sequencer. Genome Res. 10 (11), 1757-1771 (2000)
Konno,H., Fukunishi,Y., Shibata,K., Itoh,M., Carninci,P., Sugahara,Y. and Hayashizaki,Y.
Computer-based methods for the mouse full-length cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1;
                                                                                                                                                                             a
                                                                                                                                                                  encyclopedia: real-time sequence clustering for construction of nonredundant cDNA library. Genome Res. . 11 (2), 281-289 (2001) Please visit our web site (http://genome.gsc.riken.go.jp) for further details.
                                                                                                                                                                                                                                                                                                                                                                                               /clone_lib="RIKEN full-length enriched, 6 days neonate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            188 GTCTTGGGTCCGCCAGTCTCCAGAGAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAA 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                68 TTTAAAAGGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACC 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                128 TGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGAT 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  248 ATCTGATAATTATGCAACAATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAG 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          43; Indels 1; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10 ACACGACAAAGAACATTCACCATGGACTTGAGACTGAGCTGTGCTTTTATTATTGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 278.2; DB 10; Length 367;
Pred. No. 1.3e-55;
); Mismatches 43; Indels 1;
                                                                                                                                                                                                                                                                                                            /organism="Mus musculus"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="F430004H07"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mol Genet 7: 1967-1978."
68 c 98 g 90
                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67.08;
87.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 315; Conservative
                                                                                                                                                                                                                                                                                           .367
                                                                                                                                                                                                                                                    e mouse tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                      spleen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASE COUNT
                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δy
```

```
BF581663 560 bp mRNA linear EST 12-DEC-2000 602099628F1 NCI_CGAP_Co24 Mus musculus cDNA clone IMAGE:4219447 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;;
                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. I thases 1 to 560)

11 H-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       52 TITITITITITATIGETCITITIAAAAGGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAG 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                            Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can http://image.llnl.gov

Thttp://image.llnl.gov

Plate: LLAM9801 row: h column: 08

High quality sequence stop: 555.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          172 TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGGGGGCTTGAGTGGGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   232 CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 292 AGTICACCATCTCAAGAGATGATICCAAAAGICGICTCTACCIGCAAAIGAACAGCITAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 560;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tch 66.6%; Score 276.2; DB 12; Length al Similarity 90.0%; Pred. No. 3.6e-55; 307; Conservative 0; Mismatches 33; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                352 GAGCTGAAGACAGTGGAGTTTATTACTGTACAGATTTCATA 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
1. 560
                                      mRNA sequence.
BF581663
BF581663.1 GI:11655375
                                                                                                                                         Mus musculus
                                                                                                                        house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 307; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ø
```

RESULT 8

```
/note="Vector: pbeloabacli; Site_1: HindIII; Available from Research Genetics (www.ResGen.com); note - strain of origin actually 12951/Sv, immediate ancestor of 12953/SvImJ; for description of 129 substrains see Simpson et al. (1997) Nature Genetics 16: 19-27 and http://www.informatics.jax.org/mgihome/nomen/strain_129.shtml"
                                                                                                                                                                                                                                                                                                                                                                                     DNA linear; GSS 27-JUN-2001
BAC library Mus musculus genomic
family gene, DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. I (bases 1 to 612)
Chevillard; C., Mauhar, A., Herring, C.D. and Riblet, R. A 1.5 Mb 129 mouse BAC contig spanning the Ch and proximal Vh regions of the Igh*a locus
Unpublished (2001)
Other_GSSS: CT7-463K16-T7-R1737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                            12 GGACTGGGTCCGCCAGTCTCCAGAGAAGGGACTTGAGTGGGTTGCTGAAGTTAGAGAAAA 271
                                                                                                                                                                          308 AGATGATTCCAAAAGTCGTCTTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGG
                GTCTTGGGTCCGCCAGTCTCCAGAGAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                           Length 625;
                                                                                                                                                                                                                                                         AGTITATIACIGIAC --- AGAITICATAGACIGGGGCCAAGGGACACIAGT 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Torrey Pines Institute for Molecular Studies
7550 General Atomics Ct., San Diego, CA 92121, USA
7518 888 455 3762
Fax: 858 455 3739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /db_xref="taxon:10090"
/clone="CT7-463K16"
/clone_lib="CitbCJ7 mouse BAC library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /cell_type="Embryonic stem cell line"
/cell_line="CJ7"
/lab_host="HS996 (modified DH10B)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 266; DB 17; Pred. No. 9.2e-53; O; Mismatches 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: rriblet@tplms.org
Direct cycle sequence.
Seq primer: SP6: CAGCTATGACCATGATTACG
Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  177 t
                                                                                                                                                                                                                                                                                                                                                                                         BH021344 625 bp
CT7-463K16-SP6-R1734 CitbCJ7 mouse
clone CT7-463K16 similar to VhJ606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /strain="129S3/SvImJ"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  151 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BH021344.1 GI:14572403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              64.1%;
94.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    124 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Riblet R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1, .625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                    BH021344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Sim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
TITLE
                  188
                                                                                                                                                                                                                                                         368
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                      RESULT 9
BH021344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                  QQ
                                                                                                                                                                                                                 Ω
                                                                                                                                                                                                                                                                                              pp
                                                     Op
                                                                                               ò
                                                                                                                                                                              δ
                                                                                                                                                                                                                                                         ŏ
                                                                                                                                                                                          Louse musculus

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bummalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

I (bases 1 to 597)

Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque,T., Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,N., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and Waterston,R.

The WashU-HHMI Mouse EST Project
Unpublished (1996)

Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
Fax: 314 286 1800

Fax: 314 286 1810

Email: mouseest@wilson.wustl.edu
            vh10a05.rl Soares_mammary_gland_NbMMG Mus musculus cDNA clone
IMAGE:075024 5' similar to gb:S65761 IG GAWNA-2 CHAIN C REGION
(HUWAN); gb:L36938 Mus musculus germline imuunoglobulin gamma
AA472093
AA472093.1 GI:2200084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note-"Organ: mammary gland; Vector: pT7T3D-Pac (Pharmacia ) with a modified polylinker; Site_1: Not I; Site_2: Eco RI; 1st strand cDNA was primed with a Not I - oligo(dT) primer [5'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ĥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information. MGI:514504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTAAAAAGGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACC 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   128 TGGAGGATCCATGAAACTCTCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGAT 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                152 TGGAGGATCCATAAAAACTCTCCTGTGTTGTCTCTGGATTCACTTTCAGTGACGCTGGAT 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 32 ACACAGACATAGAACATCCACCATGTACTTGGGACTGAACTGTGTACTCATAGTTTTTCT 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                э,
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 597;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="IMAGE:875024"
/clone="IMAGE:875024"
/clone="IAP="Soares_mammary_gland_NbwMG"
/sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. 1.7e-54;
0; Mismatches 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Seg primer: -28ml3 rev2 ET from Amersham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /tissue_type="mammary gland"
/dev_stage="4 weeks"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 156 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 65.9%; Score 273.4; Best Local Similarity 80.8%; Pred. No. 1.7 Matches 332; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      High quality sequence stop: 440.
Location/Qualifiers
1. 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 153 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 132 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bonaldo
                                                                                                                                                                                  house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNT
                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  89
                                                                                                                      ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                           KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
AA472093
                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                        rocns
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

ö

ò

```
CTTAAAAGGTGTCCAGTGTGAGGTGAAACTGGATGAGACTGGAGGAGGCTTGGTGCAACC 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                285;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S:
Matches 285,
                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
79
                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
BG967386
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                             g
                                                                                                                                                                                                                                                      Dp
                         δy
                                                        g
                                                                                             Ω
                                                                                                                       g
                                                                                                                                                            Qγ
                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                           BE288134 11near EST 26-OCT-2000 601095304F1 NCI_CGAP_Mam5 Mus musculus cDNA clone IMAGE:3489841 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="Organ: mammary; Vector: pCMV-SPORT6; Site_1: Sall; Site_2: NotI; Cloned unidirectionally. Primer: Oligo dT. Library constructed by Life Technologies. Investigators providing samples: Lothar Hennighausen/Robin Humphreys.
                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Rodentia; Sclurognathi; Muridae; Murinae; Mus.
I (bases 1 to 615)
NIH-MGC http://mgc.nci.nih.gov/
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Morbitshed (1999)
Contact: Robert Strausberg, Ph.D.
Contact: Robert Strausberg, Ph.D.
Contact: Robert Strausberg, Ph.D.
Email: Gapbs-remail.nih.gov
Tissue Procurement. Lothar Hennighausen Ph.D., Robin Humphreys
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM8531 row: h Column: 02
                                                                                                                                                           68 TTTAAAAGGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACC 127
             GTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAG 212
                                                                                                                                           GCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGTCTTAC 332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19 AAAGTGACACAGATCATCATCATGTACTTGGGACTGAGCTGTGTATTCATTGTTTTTTT 78
                                                                           AAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACACATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             59.6%; Score 247.4; DB 10; Length 615; 78.5%; Pred. No. 2.3e-48;
                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone_lib="NCI_CGAP_Mam5"
/tissue_Yppe="timor, gross tissue"
/dev_stage="7 months"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               162 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            High quality sequence stop: 583.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /strain="C57BL/6J"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="IMAGE:3489841"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           147 g
                                                                                                                                                                                                                                                                                                                                                                           BE288134.1 GI:9167624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             139 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 78.5 les 296; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .615
                                                                                                                                                                                                                                                                                                                                                              mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                             house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                           LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
             153
                                            61
                                                                           213
                                                                                                                                           273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                              RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                          BE288134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QQ
                                                                                                                                                                         q
                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
             δ
                                         П
                                                                          οy
                                                                                                       g
                                                                                                                                         δ
                                                                                                                                                                                                             ò
```

```
BG967386 11.cGaP_Co24 Mus musculus cDNA clone IMAGE:4988282 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone="INAGE:4988282"
/clone="INAGE:4988282"
/clone=lib="NOI_CGAP_CO24"
/lab_host="DH10B (T1 phage-resistant)"
/note="Organ: colon: Vector: pCMV-SPORT6; Site_1: NotI:
Site_2: SalI: Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.6 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.W.A.G.E. Consortium/LLNL at:
http://mage.llnl.gov.k column: 03
High quality sequence stop: 703.
I. 713
                                                                                                                                                                                                                                                                                                                         1 (bases 1 to 713)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
128 TGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGAT 187
                                                                                                      188 GTCTTGGGTCCGCCAGTCTCCAGAGAGAGGGCTTGAGTGGGTTGCTGAAATTAGATTGAA 247
                                                                                                                                                                                                                  248 ATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAG 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                            139 TGGGAGGCCCATGAAACTCTCCTGTGTTGCCTCTGGATTCACTTTTGGTGACTACTGGAT
                                                                                                                                        199 GAACTGGGTCCGCCAGTCTCCAGAGAAGACTGGAGTGGGTATCACAAATTAGAAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Contact: Robert Strausberg, Ph.D.
Tissue Procurement: Jeffrey E. Green, M.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LINL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 713;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      46; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                58.9%; Score 244.4; DB 13;
larity 85.3%; Pred. No. 1.1e-47;
Conservative 0; Mismatches 46; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /strain="FVB/N"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BG967386.1 GI:14355023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ||||| |||||||
379 TATCTATTATTGTACAG 395
                                                                                                                                                                                                                                                                                                                                                                                                                                     368 AGTTTATTACTGTACAG 384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mRNA sequence.
BG967386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
```

1;

```
70 TAAAAGGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTG 129
                                                                                                                                    310 ATGATTCCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAG 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGT
                                                                                                                                                                                                                 190 CTTGGGTCCGCCAGTCTCCAGAGAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAAT
                                                                                                                                                                                                                                                                                                                    250 CTGATAATTATGCAACATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  High quality sequence stop: 607. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /strain="FVB/N"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BG967834.1 GI:14355471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 298; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360 TCTATTA 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  370 TTTATTA 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASE COUNT
                                                                                                        130
                                                                                                                                                            122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BG967834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS
                                                 QQ
                                                                                                        δλ
                                                                                                                                                          qq
                                                                                                                                                                                                                 δλ
                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ewaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eutarnalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 904)

1 (bases 1 to 904)

1 (Marc nct. nih. gov/.

1 (Marc nct. nih. gov/.

1 (Mational Institutes of Health, Mammalian Gene Collection (MGC)

1 (Inpublished (1999)

1 (Contact: Robert Strausberg, Ph.D.

1 (Email: cgapbs-r@mail.nih.gov ariseue Procurement: Gilbert Smith, Ph.D.

2 (CDNA Library Preparation: Life Technologies, Inc.

2 (CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

2 (CONTACTION CONTACTION CONT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         904 bp mRNA linear. EST 24-OCT-2000 60178606F1 NCI_CGAP_Lu30 Mus musculus cDNA clone IMAGE:4006B01 5', BF133700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="Organ: lung; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: SalI; transgenic model WNT-1, expression driven by MMTV-LTR enhancer; Cloned unidirectionally. Primer: Oligo MLT Library constructed by Life Technologies.

Investigator providing samples: Gilbert Smith, NIH"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
  GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTT 171
                                                                                                        231
                                                                                                                                                                                                                 291
                                                                                                                                                                                                                                                                                                                                                  319 GGTTCACCATCTCAAGAGATGATTCCAAAACTAGTGTTTTACCTGCAATTTGAACCAACT 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    139 GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTTGCCTCTGGATTCACTT
                                                                                                                                                                                                           232 CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGGGTCTGTGAAAGGGA
                                                                                                                                                                                                                                                               259 CTGAAGTTAGATTGAAATCTAATAATTATGCCACACATTATGCGGAGTCTGTGAAAGGGA
                                                                                                                                                                                                                                                                                                                 292 AGTICACCATCICAAGAGAIGATICCAAAAGICGICTCITACCIGCAAAI --- GAACAGCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 904;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone="IMAGE:4006801"
/clone_lib="NCI_CGAP_Lu30"
/Lissue_type="timor, metastatic to mammary"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM9238 row: 1 column: 02
High quality sequence stop: 680.
Location/Qualifiers
1. 904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 223; DB 12; Pred. No. 1.3e-42; O; Mismatches 75;
                                                                                                                                                                                                                                                                                                                                                                                                                       349 TAAGAGCTGAAGACAGTGGAGTTTATTACTGTAC 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                        379 TAAGAACTGGAAGACACTGGGTTTATATCTGTGC 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /strain="CZECH II"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BF133700.1 GI:10972740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 53.7%;
Best Local Similarity 79.0%;
Matches 290; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BASE COUNT
ORIGIN
112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BF133700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
  ò
                                                    셤
                                                                                                        å
                                                                                                                                                    g
                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
```

```
Eukaryota; Metacoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metacoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.; Eukheria; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.; I (bases 1 to 938)

8 NIH-MGG http://mgc.ncl.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov/.

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov/

Tissue Procurement: Jeffrey E. Green, M.D.

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov arise of The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llhl.gov

Plate: LAMIO997 rev. d column: 17
938 bp mRNA linear EST 12-JUN-2001
602832666F1 NCI_CGAP_Co24 Mus musculus cDNA clone IMAGE:4986976 5',
BC967834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /Clone="INAGE:4986976"
//Clone_lib="NOT_CGAP_CO34"
//lab_host="DH10B (T1 phage-resistant)"
//lab_host="DH10B (T1 phage-resistant)"
//note="Organ: colon; Vector: pCMV-SPORT6; Site_1: NotI;
Site_2: SalI; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.6 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          52 TTTTTTTTTATTGTTCTTTTAAAAGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAG 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  52.7%; Score 218.8; DB 13; Length 938; 83.7%; Pred. No. 1.2e-41; Live 0; Mismatches 47; Indels 11;
```

us-09-674-716b-1.rst

```
AW504516 446 bp mRNA linear EST 02-MAR-2000 UI-HF-BN0-alj-c-03-0-UI.rl NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079684 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="Vector: pr713-Pac; Site_1: NotI; Site_2: Eco RI; Constructed from size fractionated cytoplasmic mRNA (3.5-44kb). Directionally cloned. Cells provided by Louis M. Staudt, Ph.D. Library preparation by Maria de Fatima Bonaldo, Ph.D. and M. Bento Soares, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: cgapbs-remail.nih;gov
Eco RI site shown at the beginning of the sequence.
Tissue Procurement: Louis M. Staudt, M.D., Ph.D.
cDNA Library Preparation: M.B. Soares Lab
cDNA Library Arrayed by: M.B. Soares Lab
DNA Sequencing by: M.B. Soares Lab
Clone distribution: MC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llni.gov/bbrp/image/image.html
Seq primer: M13 Forward.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 446)
NIH-MCC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                  250 GCTCCAGGGAAGGGCTGGAGTGGGTTGGCCGTATTAAAAGCAAAACTGATGGTGGGACA 309
                                                                                                                                                                                                                                                                                                                                              264 ACACATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGT 323
                                                                                                                                                                                                                                                                                                                                                                    324 CGTCTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTAC 382
                                                                                                                                                                                     84 AGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAA
                                                                                                                                                           144 CTCTCCTGTGTGTCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAG
                                                                                                                                                                                                                                                    204 TCTCCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                50.0%; Score 207.4; DB 10; Length 446; 75.8%; Pred. No. 6.4e-39; ive 0; Mismatches 81; Indels 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /cell_type="germinal center B cells"
/cell_line="MGC85"
/lab_host="DH10B (LT1)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="IMAGE:3079684"
/clone_lib="NIH_MGC_50"
/tissue_type="lymph"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              126 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AW504516
AW504516.1 GI:7142183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 104 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 75.8
Matches 272; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1. .446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 15
AW504516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                            Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                 qq
                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                         δy
                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                      QΥ
                                                                                                                                                           QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /cell_type="gerinia" center B cells"
/cell_type="mgcd5"
/lab_host="bH10B (LT]
/lab_host="bH10B (LT]
/note="vector: pT7T3-Pac; Site_1: Not1; Site_2: Eco RI;
Constructed from size fractionated cytoplasmic mRNA
(0.5-1.5kb). Directionally cloned. Cells provided by Louis
M. Staudt, Ph.D. Library preparation by Maria de Fatima
Bonaldo, Ph.D. and M. Bento Soares, Ph.D."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     522 bp mRNA linear EST 16-FEB-2000 UI-HF-BKO-aau-b-08-0-UI.rl NIH MGC_36 Homo saplens cDNA clone IMAGE:3055046 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: cgapbs-remail.nih.gov

Eco RI site shown at the beginning of the sequence.

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

CDNA Library Preparation: M.B. Soares Lab

DNA Sequencing by: M.B. Soares Lab

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LINL at:

www-bio.llnl.gov/bbrp/image/image.html
                                                                                                                                                                                                                                                            1 (bases 1 to 522)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Uppublished (1999)
Contact: Robert Strausberg, Ph.D.
                                              201 TCAGTAACTACTGGATGAACTGGGTCCGCCAGTCTCCAGAGAGGGGCTTGAGTGGGTTG 260
                                                                                                                                                                                                                                                                                                                             AAGGGAAGTICACCAICTCAAGAGAIG--AITCCAAAAGICGICTCTACCIGCAAAIGAA 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                   CIGAAA - -TIAGAITGAAAICIGAIAATIA - - - IGCAACACAITAIGCGGAGICIGIGA 285
    TATTCATAGTTTTTTCTCTTAAAAGGTGTCCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAG 140
                                                                                                                                            TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAAGGGGCTTGAGTGGGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                       344 CAGCTTAA----GAGCTGAAGACAGTGGAGTTTATTACTGTACAGATTTCATAGACT 396
                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 522;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 209; DB 10;
Pred. No. 2.7e-39;
0; Mismatches 80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1. .522
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone_lib="NIH_MGC_36"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /db_xref="taxon:9606"
/clone="IMAGE:3055046"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="lymph
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Seg primer: M13 Forward
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AW401500.1 GI:6920108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    50.4%;
76.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 76.0
Matches 273; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AW401500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ESI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
```

DEFINITION

LOCUS

ACCESSION

VERSION KEYWORDS SOURCE

RESULT 14 AW401500

286

ά

qq ò g

232

δy

q

172

g δλ qq Ω q

ORGANISM

REFERENCE AUTHORS JOURNAL

TITLE COMMENT FEATURES

ij

Gaps

οy

BASE COUNT ORIGIN

30 CTCACCATGGATTTTGGGCTGATTTTTTTTTTTTTT	84 AGTGAAGTGAAGCTTGAGGAGTCTGGAGGGGTGCTGCAACCTGGAGGATCCATGAAA 143	144 CTCTCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAG 203	204 TCTCCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCA 263	264 ACACATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGTGATTCCAAAAGT 323	CGTCTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTAC 382
30	130	144	204	310	324
Oy	oy	Qy	Oy	Oy	oy
DP	Op	Db	Dp	Dp	ob

Search completed: April 26, 2003, 07:26:36 Job time : 557.077 secs

```
April 26, 2003, 04:50:01; Search time 83.4911 Seconds (without alignments) 11193.756 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                 1 aagetttacagttaeteage......tgggggeeaagggaeaetagt 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              . DAT: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . DAT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /SIDS2/gcgdata/geneseq/geneseqn-embl.NA1983.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl.NA1984.DAT:*/SIDS2/gcgdata/geneseqrembl.NA1985.DAT:*/SIDS2/gcgdata/geneseqrembl.NA1985.DAT:*/SIDS2/gcgdata/geneseqrem-embl.NA1986.DAT:*/SIDS2/gcgdata/geneseqrem-embl.NA1986.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl.NA1987.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl.NA1987.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl.NA1987.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl.NA1988.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1980.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1981.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1982.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DAT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      / SIDS2/gcgdata/geneseq/sciescyin embl/NA1993.
/ SIDS2/gcgdata/geneseq/geneseqn embl/NA1993.
/ SIDS2/gcgdata/geneseq/geneseqn embl/NA1995.
/ SIDS2/gcgdata/geneseq/geneseqn embl/NA1995.
/ SIDS2/gcgdata/geneseq/geneseqn embl/NA1995.
/ SIDS2/gcgdata/geneseq/geneseqn embl/NA1996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /SIDS2/gcgdata/geneseq/geneseqn-embl/Na1989.
/SIDS2/gcgdata/geneseq/geneseqn-embl/Na1990.
/SIDS2/gcgdata/geneseq/geneseqn-embl/Na1991.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /SIDS2/gcgdata/geneseq/genesegn-embl/NA1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4370478
GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2185239 seqs, 1125999159 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                 using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                             IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N_Geneseq_101002:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                           US-09-674-716B-1
                                                                                                                                 - nucleic search,
                                                                                                                                                                                                                                                                                                                     Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                     OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database :
                                                                                                                                                                                                                                                                                                                                                                                    Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Searched:
                                                                                                                                                                                                Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

/SIDS2/gcgdata/geneseq/geneseqn-embl/NA2001A.DAT: /SIDS2/gcgdata/geneseq/geneseqn-embl/NA2001B.DAT: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2002.DAT:\*

	Description	Mouse anti-CD23 MA	Murine PSCA antibo	Mouse heavy chain	Antibody ABX-CBL h	Coding strand for	Br-3 Heavy Chain V	MAb Br-3 heavy cha	MAb 4197X heavy ch	Segmence encoding
SUMMARIES	ID		AAF27975	ABK09984	AAZ20419	AAV71155			AAQ85388	
	DB	21	22	24	20	20	11	18	16	12
	Query re Match Length DB ]	415	453	453	1774	496	497	497	480	469
σŧ	Query	100.0	74.8	74.8	72.6	70.7	70.7	70.7	69.7	68.0
	Score	415	310.4	310.4	301.4	293.6	293.6	293.6	289.4	282 2
	Result No.	7	7	٣	4	'n	9	7	80	σ

Sequence encoding Nucleic acid encod Antibody 33F12 cat Anti-cataract immu Murine BrE-3 immun Sequence encoding Lead binding MAD 4	doma doma doma chai chai l muri lle ch blsp ortdom	And head head head head head head head hea	Human H chain V re Murine anti-CA19-9 Sequence encoding CC49 VL / 217 / 4- DNA encoding a pro Fusion polypeptide
201 233 247 275 275 275 275	886 887 881 881 881 881 881 881 881 881 881	149713371377	320 320 320 320 320 320 320 320 320 320
12 12 12 12 12 12 12 12	121 122 123 124 138 138	118 222 222 223 144 114	19 114 115 20 20
	0 14 10 0 10 0 0 0 10 0 10 10 10 10 10 10 10	357 357 357 357 357 1335 357 345 345	4400000
		61.7 61.7 61.7 61.7 61.7 61.3 61.5 61.5	
	5 6 6 6 6 7	2 2 2 2 2 2 2 2 2 4 4 8 8	
110 112 113 114	2 2 2 2 2 2 2 2 3 2 4 3 2 4 3 3 2 4 3 3 2 4 3 3 2 4 3 3 2 4 3 3 2 4 3 3 4 3 4	0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	40 42 44 44 45

# ALIGNMENTS

AAZ34745 standard; cDNA; 415 BP.

RESULT 1

AAZ34745;

inflammation, arthritis; lupus erythematosus; multiple sclerosis; Hashimoto's thyroiditis; diabetes; uveitis; dermatitis; psoriasis; urticaria; nephrotic syndrome; glomerulonephritis; inflammatory bowel disease; ulcerative colitis; Crohn's disease; Sjogren's syndrome; allergy; asthma: rhinitis; eczema; insulltis; graft-versus-host disease; COPD; bronchitis; diabetes; B-cell malignancy; therapy; ds. CD23; FCERII; IgE receptor; monoclonal antibody; C11; mouse; monoclonal antibody; chimeric antibody; humanised antibody; complementarity determining region; CDR; autoimmune disease; Mouse anti-CD23 MAb C11 heavy chain variable region cDNA. Location/Qualifiers 99WO-GB01434. (first entry) ซ /\*tag= .413 W09958679-A1. 07-MAY-1999; Mus musculus 15-FEB-2000 18-NOV-1999 

(first entry)

08-MAY-2001

AAF27975;

```
;
0
                                                                                                                                                                                                                         This DNA sequence encodes the heavy chain variable region (VH) of murine anti-CD23 (FCERII) monoclonal antibody Cll. The invention provides altered antibodies, such as chimeric or humanised antibodies (see AA23474 and AA234748), which comprise sufficient of the amino acid sequences of the Cll light and heavy chain complementarity determining regions (see AA73254-59) for render them capable of binding to the CD23 type II molecule expressed on haman therapy, for the treatment of arthritis, copial formation in human therapy, for the treatment of arthritis, lupus erythematosus, Hashimoto's thyroiditis, multiple sclerosis, diabetes, uveitis, dermatitis, psoriasis, urticaria, nephrotic syndrome, glomerulonephritis, inflammatory bowel disease, ulcerative colitis, Crohn's disease, Sjogren's syndrome, allergic asthma, intrinsic asthma, acte asthmatic exacerbation, rhinitis, casthma, intrinsic asthma, acte asthmatic exacerbation, rhinitis, (particularly chronic bronchitis) or diabetes (particularly type I diabetes), and B-cell malignancles (claimed). They are also useful distantion the binding and various ligands and
                                                                                                                                                 Cell receptor specific antibodies useful for treating e.g. arthritis, diabetes, multiple sclerosis and psoriasis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 AAGCTTTACAGTTACTCAGCACCACAGGACCTCACCATGGATTTTGGGCTGATTTTTTTA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 TTGTTCTTTTAAAAGGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCAACCTGGAGGATCCATGAAACTCTCCTGTGGTAGCCTCTGGATTTACTTTCAGTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 GATTGAAATCTGATAATTATGCAACATTATGCGGAGTCTGTGAAAGGGAAGTTCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTCAAGAGATGATTCCAAAAGTCGTCTTCTACCTGCAAATGAACAGCTTAAGAGCTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 415;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAGTGGAGTTTATTACTGTACAGATTTCATAGACTGGGGCCCAAGGGACACTAGT
                                                                             Shearin J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 415 BP; 111 A; 76 C; 110 G; 118 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 415; DB 21;
100.0%; Pred. No. 6.1e-115;
iive 0; Mismatches 0;
                                                                             Rapson NT,
                                                                           Ellis JH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               determining the binding agents.
                                                                                                                                                                                              Claim 16; Fig 1; 81pp; English
               98GB-0009839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.0
Matches 415; Conservative
                                                                           SJ,
                                            (GLAX ) GLAXO GROUP LTD
                                                                          Crowe
                                                                                                      2000-053101/04.
                                                                                                                       P-PSDB; AAY32260
                                                                        Bonnefoy JMP,
              09-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301 '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
```

AAF27975 ID AAF27975 standard; DNA; 453 BP.

RESULT .2

```
The present invention describes a method of treating cancer associated with prostate stem cell antigen (PSCA) by administering an antibody which selectively binds to PSCA and inhibits the growth of the cancer cells. The PSCA gene is found on human chromosome 8q24.2. The invention provides the human and murine PSCA protein and coding sequences, which can be used not only in the treatment of, but also in detection and prognosis of prostate cancer.
                                                                                                                                                                                                                                                                                                                                                                          Antibodies binding to prostate stem cell antigen inhibit the growth of cancer cells and are used to detect and treat prostate, pancreatic or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95 GCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGT 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAAGTCGTCTTACCT 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       35 CATGGATTTTGGGCTGATTTTTTTTTTTTTTTAAAAGGGGTCCAGAGTGAAGTGAA 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    155 AGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            215 GGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              em cell antigen; PSCA; human; mouse; prostate cancer; treatment; chromosome 8q24.2; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 310.4; DB 22; Length 453;
Pred. No. 1.9e-83;
0; Mismatches 26; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGAT 386
                                                            Murine PSCA antibody 2H9 H chain V region coding sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 453 BP; 115 A; 93 C; 122 G; 123 T; 0 other;
                                                                                                                                                                                                                                                                                                               Jakobovits A;
                                                                                                                                                                                                                                                                                                                                                                                                                             Example 21; Fig 60; 229pp; English.
                                                                                                                                                                                                                                                                                                               Saffran DC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     74.8%;
92.6%;
                                                                                                                                                                                                       20-JUL-2000; 2000WO-US19967
                                                                                                                                                                                                                                   20-JUL-1999; 99US-0359326
03-MAY-2000; 2000US-0564329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 92.6
Matches 326; Conservative
                                                                                                                                                                                                                                                                     (REGC ) UNIV CALIFORNIA. (UROG-) UROGENESYS.
                                                                                                                                                                                                                                                                                                             Reiter R, Witte O,
                                                                                                                                                                                                                                                                                                                                       2001-159478/16
                                                                                                                                                                                                                                                                                                                                     WPI; 2001-159478,
P-PSDB; AAB35292
                                                                                                                                                                                                                                                                                                                                                                                                    bladder cancers
                                                                                                                                                      WO200105427-A1.
                                                                                       Prostate stem
                                                                                                                                                                                                                                 20-JUL-1999;
                                                                                                                                                                                25-JAN-2001.
                                                                                                     diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                               Wus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             306
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δŻ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δy
```

ö

```
W09945031-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 4
AAZ20419
q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ōλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ÓΣ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention relates to new antibodies that specifically bind a novel prostate stem cell antigen (BSCA), which is widely over-expressed across all stages of prostate cancer. The antibodies of the invention are useful to kill tumour cells expressing PSCA and as PSCA expression is observed in prostate tumour cells and in other human cancers,
                                                                                                                                                                                                                                                                                                                                                                                                                               'note "This sequence lacks both a start and stop codon"
                                                                                                                                                                                                Mouse; prostate stem cell antigen; PSCA; gene; antibody; immunogen; prostate cancer; bladder cancer; pancreatic cancer; immunoconjugate; PSCA-associated cancer; heavy chain variable domain region; PSCA antigen; PSCA antibody 2H9; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /*tag= c
/note= "Complementarity determining region 2 (CDR2)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /*tag= d
/note= "Complementarity determining region 3 (CDR3)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antigen, PSCA, useful as antitumour agents in treatment of prostate, bladder and pancreatic cancer and in prostate cancer diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /*tag= b
/note= "Complementarity determining region 1 (CDR1)"
                                                                                                                                                             Mouse heavy chain variable domain region of PSCA antibody 2H9 gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New antibodies specifically binding a novel prostate cell surface
                                                                                                                                                                                                                                                                                                                                                                                           /partial
/product= "Mouse PSCA antibody 2H9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Jakobovits A;
                                                                                                                                                                                                                                                                                                                                      location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 21; Fig 60; 127pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Saffran DC,
                                               ABK09984 standard; DNA; 453 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-071141P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97US-228816P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-124658P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0203939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0564329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-113230P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-120536P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99US-0251835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99US-0318503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0359326
                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                             ಡ
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         205..261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                358..375
                                                                                                                                                                                                                                                                                                                                                     .453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WITTE O N.
SAFFRAN D C.
JAKOBOVITS A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Reiter RE, Witte ON,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-194864/25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REITER R E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P-PSDB; AAU76696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US2001055751-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   03-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12-JAN-1998;
13-FEB-1998;
21-DEC-1998;
17-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-DEC-1998;
17-FEB-1999;
25-MAY-1999;
                                                                                                                         21-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-JUL-1999
                                                                                     ABK09984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REIT/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (JAKO/)
                                                                                                                                                                                                                                                                                                Mus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WITT/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (SAFE/)
                         ABK09984
           RESULT
                                                 THE STATE OF THE S
```

```
particularly bladder and pancreatic carcinomas, the antibodies are useful therapeutically to treat these diseases. In particular, monoclonal artibodies can be administered to subjects suffering from RSCA-associated cancers, e.g. prostate, bladder or pancreatic cancer or metastatic prostate, bladder or pancreatic cancer, to inhibit the cancer and prolong the subject's life. The antibodies can be combined with a therapeutic agent in immunoconjugates useful to treat subjects suffering from malignant diseases, characterised by cells having PSCA antigen on the call surface e.g. cancers, by killing the cells. The antibodies and immunoconjugates may also be included with a carrier in pharmaceutical compositions useful to kill human cells expressing PSCA antigen on the cancer. The antibodies are also useful diagnostically to detect cancers, especially prostate cancer, to isolate prostate cancer cells compounds, assist in identification of rare genes associated with prostate cancer, and to isolate and purify PSCA and PSCA homologues. The present nucleic acid sequence encodes the mouse heavy chain variable commain region of the PSCA monoclonal antibody 2H9 of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antibody; CD147; IgM; ABX-CBL; activated T-cell killing; leukaemia; activated B-cell; monocyte; graft versus host disease; therapy; cancer; organ transplant rejection disease; lymphoma; pancreatic disease; autoimmune disease; inflammatory disease; arthritis; binding site; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            95 GCTTGAGGAGTCTGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGT 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            126 AGCCICIGGATITACTITCAGIAATTACTGGATGACTTGGGTCCGCCAGICTCCAGAGAA 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   35 CATGGATTTTGGGCTGATTTTTTTTTTTTTTTTTTTTAAAAGGGGTCCAGAGTGAAG 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   155 AGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             215 GGGGCTTGAGTGGGTTGCTGAAATTAGAATCTGAAATTATATTATGCAACACATTATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   275 GGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGTCTCTACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        74.8%; Score 310.4; DB 24; Length 453; 92.6%; Pred. No. 1.9e-83; ive 0; Mismatches 26; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 335 GCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGAT 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 453 BP; 115 A; 93 C; 122 G; 123 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antibody ABX-CBL heavy chain coding sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
58..1770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAZ20419 standard; cDNA; 1774 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
nes 326; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAZ20419;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Loca
Matches
```

```
11 TCACTAACTATTGGATGAACTGGGTCCGCCAGTCTCCAGAGAGGGGCTTGAGTGGGTTG 270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         52 TITITITITATETCTTTTAAAAGGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAG 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              91 TATTCATAGTTTTTCTCTTAAAAGGTGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAG 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antigen bound by antibody ING-I (produced by hybridoma cell line ATCC HB 9812). The chimeric antibodies also have an antigen-binding site that competitively inhibits the binding of antibody ING-I, and mediate complement-dependent cytolysis of target cells or antibody-dependent callular cytotxicity to target cells. The chimeric antibodies can be used for therapeutic purposes in the treatment of human cancer.
                                                                                     Heavy chain variable region; murine antibody Br-3; antibody ING-1; chimeric immunoglobulin; human tumour antigen; chimeric antibody; treatment; human cancer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          172 TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAGGGGCCTTGAGTGGGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chimeric antibody specific for human tumour antigen - useful as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence encodes the heavy chain variable region of murine antibody Br-3. The sequence was used to create chimeric mouse-human immunoglobulins which recognise the human tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 293.6; DB 20; Length 496;
Pred. No. 2.3e-78;
0; Mismatches 24; Indels 0;
                                                                                                                                                                                                     Location/Qualifiers
69..494
/*teg= a /note= "Partial CDS, no termination codon"
                                                      for mouse Br-3 heavy chain variable region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Robinson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 496 BP; 141 A; 106 C; 118 G; 131 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lei S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                immunoassay, imaging or antitumour agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Horwitz AH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 3; Fig 15; 92pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70.7%;
92.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                          8805-0240624

8805-0241744

8805-0243739

8805-0253002

8905-0367641

8905-0364001
                                                                                                                                                                                                                                                                                                                                                                         95US-0466034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95US-0466034
                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best_Local Similarity 92.8
Matches 308; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Better MD, Chang CP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1999-044574/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (XOMA ) XOMA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P-PSDB; AAW85059
                                                      Coding strand
                                                                                                                                                                                                                                                                                                                                                                                                          06-SEP-1989;
06-SEP-1988;
08-SEP-1988;
                   16-APR-1999
                                                                                                                                                                                                                                                                                                                                                                       06-JUN-1995;
                                                                                                                                                                                                                                                                                                 US5843685-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-SEP-1988)
04-OCT-1988)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-JUL-1989,
27-DEC-1994,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-JUN-1989
                                                                                                                                                                                                                                                                                                                                    01-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                      Mus sp
 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ï
                                                                                                                                                                                                                                                                                                                                                                 This sequence encodes the heavy chain of the antibody ABX-CXL. The invention relates to a monoclonal antibody (MAb) with an isotype that fixes complement and a variable region that binds to the epitope on CD147 bound by the IgM MAb ABX-CBL, providing that the antibody is not CBL1. The MAb can selectively Kill activated T-cells, activated B-cells or resting or activated monocytes. The products and methods can be used for treating diseases involving activated T-cells or B-cells or monocytes, e.g. graft versus host disease (GVHD), organ transplant rejection diseases (e.g. renal transplant, ocular transplant), cancers of the blood (e.g. leukaemia's and lymphomas) and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             pancreatic), autoimmune diseases (e.g. lupus), and inflammatory diseases
                                                                                                                                                                    Hales J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTTTTTTTTTTGTTCTTTTAAAAGGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAG 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGCTGAAGACAGTGGAGTTTATTACTGTACAGATTTCATAG----ACTGGGGCCCAAGGGA 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23 JATTCATAGTTTTTCTCTTAAATGGTGTCCAGAGTGAAGGTGAAGCTTGAGGAGTCTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     clonal antibody, used for treating e.g. graft versus host cancers, autoimmune diseases and inflammatory diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTTGCCTCTGGATTCACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGGGGGCTTGAGTGGGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          292 AGTICACCATCICAAGAGAIGAITCCAAAAGICGICTICIACCIGCAAAIGAACAGCIIAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 301.4; DB 20; Length 1774; Pred. No. 1.6e-80; Mismatches 31; Indels 3;
                                                                                                                                                                    Green LL,
RF, Yang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1774 BP; 460 A; 488 C; 420 G; 406 T; 0 other;
                                                                                                                                                                                   Weber
                                                                                                                                                                  Culwell AR,
Liu Q, Weber
                                                                                                                                                                                                                                                                                                                                    Disclosure; Page 57-58; 245pp; English.
                                                                                                                                                                    Corvalan JR,
Lipani JA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAV71155 standard; DNA; 496 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    72.68;
90.78;
                                     99WO-US04583
                                                                        98US-0034607
99US-0244253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                               monoclonal antibody,
                                                                                                                                                                  Blacher RW,
, Ivanov VE,
                                                                                                                            (ABGE-) ABGENIX INC.
                                                                                                                                                                                                                      WPI; 1999-540816/45.
P-PSDB; AAY39451.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (e.g. arthritis)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACTAGT 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCTGGT 389
                                                                                         03-FEB-1999;
                                   03-MAR-1999;
                                                                                                                                                                                   Havrilla N,
                                                                        03-MAR-1998;
10-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Simi
Matches 333;
                                                                                                                                                                    Davis CG,
                                                                                                                                                                                                                                                                                                 disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAV71155;
```

ò g

83 112

ò g õ

172

셤

232 203

õ

g

ò g ò g ò

352 323 409 383

RESULT 5 AAV71155 ü

RR;

ö

Gaps

;

291

AAQ08605;

RESULT 6 AAQ08605

Qγ g δy 셤

S

```
292 AGTICACCATCTCAAGAGATGATTCCAAAAGTCGTCTTACCTGCAAATGAACAGCTTAA 351
                                                                                                                                                                                                                                                                                                   212 TCAGTAACTATTGGATGAACTGGGTCCGCCAGTCTCCAGAGAAGGGGCCTTGAGTGGGTTG 271
              52 TTTTTTTTTTTTTTTTTTTAAAAGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAG 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chimeric antibody; monoclonal antibody; Br-3; antibody engineering; tumour; antigen; breast carcinoma; lung carcinoma; colon carcinoma; ovary carcinoma; cancer; diagnosis; therapy; heavy chain; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chimeric mouse-human antibodies - recognise a human tumour antigen, used for the treatment and diagnosis of human cancers
                                                                              GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTT
                                                                                              172 TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAAGGGGCTTGAGTGGGTTG
                                                                                                                                                                                                                CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Robinson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag= a
/product= Br-3 heavy chain V region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MAb Br-3 heavy chain variable region cDNA.
                                                                                                                                                                                                                                                                                                                                                  352 GAGCTGAAGACAGTGGAGTTTATTACTGTACA 383
                                                                                                                                                                                                                                                                                                                                                                   392 GAGCTGAAGACACTGGCATTTATTACTGTACA 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers 70..497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Horwitz AH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 3; Fig 15; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAT43437 standard; cDNA; 497 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91US-0659401.
88US-024054.
88US-0241744.
88US-0233002.
88US-0253002.
89US-0367641.
89US-0367641.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        88US-0240624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Better MD, Chang CP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1997-011249/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (XOMA ) XOMA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P-PSDB; AAW06212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-MAY-1991;
06-SEP-1988;
08-SEP-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-SEP-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US5576184-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-SEP-1988;
04-OCT-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-JUN-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-JUL-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus sp.
                                                                              112
                                                                                                                                                                                                                232
                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 7
AAT43437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                     g
                                                                                                                                        ΩŸ
                                                                                                                                                                               QQ
                                                                                                                                                                                                                  δŏ
                                                                                                                                                                                                                                            Dp
                                                                                                                                                                                                                                                                                 Ω
                                                                                                                                                                                                                                                                                                                 pp
                                                                                                                                                                                                                                                                                                                                                  δλ
                                                                                                                                                                                                                                                                                                                                                                              QQ
                                                                             QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           to the Jh3-Ch1 junction. The sequence is used in the prodn. of a chimeric antibody mol. comprising two light chains and two heavy chains, each having a constant region (human) and a variable region (murine) having specificity to an antigen bound by murine monoclonal antibody (MAD) Br-3. The chimeric antibodies can be used for any purpose for which the original murine MABs can be used, with the advantage that they are more compatible with the human body. They are esp. used for
                 292 AGTICACCATCTCAAGAGAIGATTCCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAA 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Shown is the nucleotide sequence from the end of the oligo-dC tail
CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chimeric mouse-human antibodies - prepd. using genes coding for constant human region murine variable region, esp. to 3 tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70.7%; Score 293.6; DB 11; Length 497; llarity 92.8%; Pred. No. 2.3e-78; Conservative 0; Mismatches 24; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                Monoclonal antibody, chimera; light; heavy; chain; constant; variable; antigen; diagnosis; cancer; tumour; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chang CP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Seguence 497 BP; 141 A; 106 C; 118 G; 132 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 13; Page 123 + Fig 15; 173pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lei
                                                                                                                                                   391 GAGCTGAAGACACTGGCATTTATTACTGTACA 422
                                                                                                                                352 GAGCTGAAGACAGTGGAGTTTATTACTGTACA 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the diagnosis and treatment of cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Horwitz AH, Robinson RR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers 70..495
                                                                                                                                                                                                                                                                                                                                                    Br-3 Heavy Chain V Region (mouse)
                                                                                                                                                                                                                                                   BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       88US-0241744.
88US-0243739.
88US-0253002.
                                                                                                                                                                                                                                                   AAQ08605 standard; DNA; 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        89US-0382768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         89WO-US03852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (ITGE-) INT GENETIC ENG INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         88US-0240624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          89US-0367641
                                                                                                                                                                                                                                                                                                                    04-MAR-1993 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1990-115825/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
Matches 308; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P-PSDB; AAR09423
                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-SEP-1988;
13-SEP-1988;
04-OCT-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-SEP-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-JUN-1989;
21-JUL-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9002569-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-MAR-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-SEP-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Better MD,
```

Query Match

antigen

```
Matches
                                                                                                                                                                                                                                                                                                                    172
                                                                                                                                                                                                                                                                                                                                                         232
                                                                                                                                                                                                                                                                                                                                                                                             292
                                                                                                                                                                                                                                                                                                                                                                                                                                 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 9
AAQ12060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Key
     qq
                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                             Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                       TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAGGGGGCTTGAGTGGGTTG 231
                                                                                                                                                                                                                                                                      291
                                                                                                                                                                                                                                                                                                                   331
                                                                                                                                                                                                                                                                                                                                   AGTICACCATCICAAGAGAIGATICCAAAAGTCGICTCTACCIGCAAAIGAACAGCTTAA 351
                                                                                                                                                                                                                                                                                                                                               332 GGTTCACCATCTCAAGAGATGATTCCAAAAGTAGTGTCTACCTGCAAATGAACAACTTAA 391
                                                                                                                                                                     Gaps
      A cDNA clone (AAT43437) codes for the heavy chain variable region (AAW06512) of mouse monoclonal antibody (Mab) Br-3, and extends from the end of the oligo-dc tail to the UH3-cH1 junction. It was obtd. from a Br-3 hybridoma cDNA library by screening with a mouse IgG1 expressed on the surface of human lung, breast, colon and ovary carcinomas, but not on most normal adult tissues. Light chain and heavy chain variable region (see also AAT4344-43) sequences can be used with human constant region sequences to express mouse-human chimneric antibodies in transformed host cells. The antibodies have treatment and diagnosis of human cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Immunotoxin; heavy chain; light chain; variable region; antibody;
ricin-A; cytostatic; cataract; lens opacification; epithelial cell;
pHBL9; 4197X; monoclonal antibody; MAb; ds.
                                                                                                                                                                                                                                                                                                          232 CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA
                                                                                                                                                                    ;
0
                                                                                                                                                  DB 18; Length 497;
                                                                                                                                                         Pred. No. 2.3e-78;
0; Mismatches 24; Indels
                                                                                                                              Sequence 497 BP; 141 A; 106 C; 118 G; 132 T; 0 other;
                                                                                                                                                 Score 293.6;
                                                                                                                                                                                                                                                                                                                                                                      352 GAGCTGAAGACAGTGGAGTTTATTACTGTACA 383
                                                                                                                                                                                                                                                                                                                                                                                 MAb 4197X heavy chain variable region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
1..480
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                       BP
                                                                                                                                                70.78;
92.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                     AAQ85388 standard; cDNA; 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94WO-US07919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93US-0101329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                        3est Local Similarity 92.8
4atches 308; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-AUG-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9503828-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAQ85388;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                               Query Match
                                                                                                                                                                                                                                                            172
                                                                                                                                                                                                                                                                             212
                                                                                                                                                                                                                                                                                                                                                                                         392
                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 8
AAQ85388
$$$$$$$$$$$$$$$$$$$$$$
                                                                                                                                                                                                    g
                                                                                                                                                                                                                                        g
                                                                                                                                                                                   à
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
An immunotoxin (given in AAR70827) comprises the heavy (VH) and light chain (VL) variable regions of anti-lens epithelium IgG3 MAb 4197X linked to ricin-A. cDNAs encoding the VL and VH regions of 4197X (AAQ85387-88, respectively) were obtained from hybridoma mRNA, amplified by PCK, and engineered for inclusion in the immunotoxin construct (AAQ85386).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             112 GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCCTGTGTAGCCTCTGGATTTACTT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAGGGGGCTTGAGTGGGTTG 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGAAATTAGATTGAAATCTGATAATTATGCAACACTTTATGCGGAGTCTGTGAAAGGGA 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               259 CTGAAATTAGATTGAAATCTAATAATCCAACACATTATGCGGAGTCTGTGAAAGGGA 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTICACCATCICAAGAGATGATICCAAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAA 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             319 GGTTCACCATCTCAAGAGATGATTCCAAAAGTAGTGTCTACCTGCAAATGAACAACTTAA 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag= a
/product= mouse MAb 1C11 H-chain variable region
                                                                                                                                                                     New single chain immuno:toxin - binds specifically to epithelial cells, for inhibiting development of sec. cataracts after
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 16; Length 480;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence encoding heavy chain variable region of murine 1C11 immunoglobulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 480 BP; 131 A; 105 C; 115 G; 129 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chimeric antibodies; immunoconjugates; HIV; AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4.2e-77
                                                     MS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 289.4; E
Pred. No. 4.2e-
0; Mismatches
                                                     Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           379 GAGCTGAAGACACTGGCATTTATTACTGTAC 409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGCTGAAGACAGTGGAGTTTATTACTGTAC 382
                                                Wallace TL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                         cells, for inhibiting development o extra:capsular cataract extraction.
(HOUS-) HOUSTON BIOTECHNOLOGY INC
                                                                                                                                                                                                                                                                   Disclosure; Fig.2; 68pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 69.7%;
ilarity 92.1%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAQ12060 standard; DNA; 469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-AUG-1991 (first entry)
                                                Kelleher PJ,
                                                                                                WPI; 1995-082036/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                       P-PSDB; AAR70829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9107493-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 305;
                                             Gould RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAQ12060;
```

ö

\_

```
Sequence encoding mouse MAb iCll H chain V region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCTGGT
                                                       Mus sp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 11
                                                                           Key
   δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qγ
                                                                                                                                                                                                                                                                                                                                                                         1;
                                                                                                                                                                                               This sequence encodes the heavy chain variable (V) region of a mouse monoclonal antibody (MAb), 1C11, specific for an HIV-1 viral antigen. It is used in the construction of a chimeric MAb comprising heavy and light chains having murine V regions and human c regions. The chimeric MAbs are more effective than murine MAb comprising have an increased compatibility in humans. The heavy and light chain V-regions are joined by manipularing their respective joining (J) regions, to generate restriction enzyme recognition sites. The chimeric MAbs can be used as immunoconjugates, in association with e.g. toxins for HIV treatment. They can also be used in diagnosis of HIV.

See also AAQ12056-59 and AAQ12061-63.

Sequence 469 BP; 127 A; 96 C; 120 G; 126 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                209 TTAGTGACGCCTGGATGGACTGGGTCCGCCAGTCTCCAGAGAGGGGCTTGAGTGGGTTG 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCAGIGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAGGGGGCTTGAGTGGGTTG 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTICACCATCICAAGAGAIGATICCAAAAGICGICTCTACCIGCAAATGAACAGCITAA 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGCTGAAGACAGTGGAGTTTATTACTGTACAGATTTCATAG---ACTGGGGCCAAGGGA 408
                                                                                                                                                                                                                                                                                                                                                                                                                                    112 GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTT 171
                                                                                                                                                                                                                                                                                                                                                                         3; Gaps
                                                                                                                                                New chimeric mouse-human.antibodies - used to detect, kill and remove HIV-1 antigen from sample
                                                                                                                                                                                                                                                                                                                                                  68.0%; Score 282.2; DB 12; Length 469; 87.5%; Pred. No. 6.1e-75; Live 0; Mismatches 43; Indels 3;
                                                                                              Robinson RR;
                                                                                              Ghosh-Dastidar P,
                                                                                                                                                                               Disclosure; fig 12; 107pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP.
                      90WO-US06615.
                                          89US-0433730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAQ12016 standard; DNA; 469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-AUG-1991 (first entry)
                                                                                                                                                                                                                                                                                                                                                                   Matches 321; Conservative
                                                              (XOMA-) XOMA CORP.
                                                                                              Horwitz AH,
                                                                                                               WPI; 1991-178044/24
                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                             P-PSDB; AAR12358.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACTAGT 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      449 CTCTGGT 455
                     13-NOV-1990;
                                          13-NOV-1989;
30-MAY-1991
                                                                                           Better MD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAQ12016;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 10
AAQ12016
ID AAQ12
XX
AC AAQ12
XX
DT . 19-AU
ŏ
                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pp
```

112 GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTT 171 172 TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAGGGGCTTGAGTGGGTTG 231 268 291 351 Gaps New chimeric mouse human antibodies - used in treatment, diagnosis and prophylaxis of HIV infections. þe 232 .CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA 292 AGTICACCATCTCAAGAGATGATTCCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAA 329 GGTTCACCATCTCAAGAGATGATTCCAAAAGTAGTGTCTACCTGCAAATGAACAGCTTAA 352 GAGCTGAAGACAGTGGAGTTTATTACTGTACAGATTTCATAG----ACTGGGGCCAAGGGA The mouse VH gene product may be used to produce chimeric mouse-human Abs against HIV-1 comprising human Ig constant regions and murine variable regions. These novel sequence are useful in treatment, diagnosis and prophylaxis of HIV infections, and may produced by a bacterial, yeast or mammalian expression system. 3; 68.0%; Score 282.2; DB 12; Length 469; 87.5%; Pred. No. 6.1e-75; 43; Indels RR; Robinson Sequence 469 BP; 127 A; 96 C; 120 G; 126 T; 0 other; Ghosh-Dastidar P, 0; Mismatches Location/Qualifiers Disclosure; Fig 12; 108pp; English HIV infections. 90WO-US06627 89US-0433703 Matches 321; Conservative Horwitz AH, 67..469 /\*tag= Local Similarity WPI; 1991-178106/24. HIV-1; chimera; ds. (XOMA-) XOMA CORP. P-PSDB; AAR12236 409 CACTAGT 415 13-NOV-1990; 13-NOV-1989; WO9107494-A 30-MAY-1991, Better MD, Query Match

1;

455

us-09-674-716b-1.rng

```
Antibody 33F12 catalytic fragment nucleotide sequence.
                                                                                                                                 25-MAY-1999;
                                                  Unidentified
                                                                                         30-NOV-2000
                                                                                                                                                                          Barbas CF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               200
  Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 TCCTGTGTTGCCTCTGGATTCACTTTCAGTAACTACTGGATGAACTGGGTCCGCCAGTCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 CCACAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTAATAATTATGCAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                    87 GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence encodes a branched mucin type synthetic glycolipid. A gene fragment encoding the V region of the heavy forbin of an antibody recognising the protein encoded by the present sequence is claimed. The antibody gene fragment is useful for the development of cancer treatments and diagnosing agents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            267 CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       147 TCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                                                                                                                                                                                                                            Recognising branched mucin type synthetic glycolipid - using gene fragment of an antibody, useful in cancer treatment and diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 GTCTACCTGCAAATGAACAACTTAAGAGCTGAAGACACTGGCATTTATTATTACTGTAC 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   327 CTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGGAGTTTATTACTGTAC 382
                                                                                     Branched mucin type glycolipid; V region; heavy chain; antibody; cancer treatment; diagnosis; ss.
                                                                      encoding synthetic branched mucin type glycolipid.
                                                                                                                                                                                                                                                                                                                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                           .65.5%; Score 272; DB 19; Length 357; llarity 94.9%; Pred. No. 6.4e-72; Conservative 0; Mismatches 15; Indels
                                                                                                                                                                                                                                                                                                                                                                                        Sequence 357 BP; 99 A; 75 C; 93 G; 90 T; 0 other;
          BP.
          357
                                                                                                                                                                                                                                                                                                         Claim 1; Pages 4-5; 6pp; Japanese.
          to mRNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAC90472 standard; DNA; 856
                                                                                                                                                                                   96JP-0241725
                                                                                                                                                                                                       96JP-0241725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
          standard; cDNA
                                                                                                                                                                                                                                              WPI; 1998-264850/24.
P-PSDB; AAW46958.
                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
Matches 281; Conserv
                                                                                                                                                                                                                           (TOYJ ) TOSOH CORP.
                                                                      Nucleic acid
                                                                                                                                            JP10084963-A.
                                                                                                                                                                                                       12-SEP-1996;
                                                                                                                                                                                   12-SEP-1996;
                                                  06-JUL-1998
                                                                                                                                                               07-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-MAR-2001
                                                                                                                       Synthetic.
          AAV22331
                            AAV22331;
                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAC90472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    207
AAV22331
                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
```

```
The present sequence may be used in the activation of new ketone prodrug compounds containing active agents. The ketone derivatives are useful as carriters for antitumnur agents such as cytotoxic agents, where the antitumour agent is a microtubule stabilising agent such as paciltaxel, epothiloric such as doxorubich or its therapeutically active analogue or an anthracycline antitumour agent as a microtubule stabilising agent such as advorubich or its therapeutically active analogue. The ketone derivatives are useful for targeted drug delivery.

The inactive molecules by retro-Michael reaction. The antibody has a cative molecules by retro-Michael reaction. The antibody has bifunctional activity and specifically immunoreacts with cell surface antigen of a target cell. The active ingredients can be mixed buffering agent to enhance the effectiveness and activity of the buffering agent to enhance the effectiveness and activity of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGAT 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         460 GAGGTGATGCTGCTGGAGTCTGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         207 CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTTGAAATCTGATAATTATGCAACA 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 22; Length 856;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New ketone compounds containing active agents useful as carie.g. antitumor agents, antibiotics or fluorescent molecules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 271.6; DB 22; Length
Pred. No. 1.2e-71;
0; Mismatches 24; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 856 BP; 195 A; 208 C; 228 G; 225 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lerner
Antibody 33F12; ketone compound; antitumour; targeted drug delivery; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               List B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Fig 10; 45pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ပဲ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rader
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 65.4%;
Best Local Similarity 92.3%;
Matches 286; Conservative (
                                                                                                                                                                                                                                                                                                         24-MAY-2000; 2000WO-US14366
                                                                                                                                                                                                                                                                                                                                                                        99US-0318661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Shabat D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-061339/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                               (SCRI ) SCRIPPS RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCATAGACT 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATTTTACT 769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P-PSDB; AAB50426
                                                                                                                                                                  WO200071556-A1.
```

for

ö

326

σ

```
112 GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAAGGGGCTTGAGTGGGTTG 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Primers JO2, JO3, JO4, JO14 and VHIBACK (AAQ62740-Q62744) were all used to prepare cDNAs that encode the BrE-3 mouse Ig variable domains. The amplified V-regions lacked constant regions so as to produce less immunogenic polypeptides. A hybrid polypeptide was prepared using human constant regions with the murine V regions. The chimeric polypeptide retained the binding affinity of BrE-3 for human milk fat globule.
Immunoglobulin variable domain; primer; polymerase chain reaction; chimeric antibody; human milk fat globule; BrE-3 VH-chain; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chimeric human-murine polypeptide(s) specific for human mammary fat globule antigen – for imaging, diagnosing and treating neoplasia, with less undesirable immunogenic response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64.9%; Score 269.4; DB 15; Length 403; 85.3%; Pred. No. 4.1e-71;
                                                                                                                                                                                                                                                                                                                                                                 a
"BrE-3 VH chain (no termination codon)"
                                                                                                                                                                                                                Murine BrE-3 immunoglobulin heavy chain variable domain cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 403 BP; 105 A; 73 C; 113 G; 112 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            51;
                                                                                                                                                                                                                                                                                                                                                                                                                              /product= heavy_chain_V-region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (CANC-) CANCER RES FUND CONTRA COSTA.
                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 10; Page 32; 54pp; English.
                                                                                                                BP.
                                                                                                                AAQ62750 standard; cDNA; 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            92US-0977706.
92US-0977707.
93US-0128015.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93WO-US11316
                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                              Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 85.3
Matches 313; Conservative
                                                                                                                                                                                                                                                                                                                                                                                /note= "
58..402
                                                                                                                                                                                                                                                                                                                                                                 /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                              /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1994-183509/22.
P-PSDB; AAR52771.
                                                                                                                                                                                                                                                                                                 Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-NOV-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-NOV-1992;
28-SEP-1993;
                                                                                                                                                                                24-JAN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9411508-A.
                                                                                                                                                                                                                                                                                                                                                                                               mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local 5
                                                                                                                                                AAQ62750;
                                                                                    RESULT
                                                                                                                                                  δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏλ
   δŷ
                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The immunotoxin given in AAR70827 comprises the heavy and light chain variable regions of anti-lens epithelium IGS3 MAb 4197X linked to articin-a and a hexa-histidine tag. The DNA construct encoding the immunotoxin was expressed from pHB19 in E. coli.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCCTGTGTTGCCTCTGGATTCACTTTCAGTAACTTCTGGATGAACTGGGTCCGCCAGTC 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             86 TGAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACT 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CICCIGIGIAGCCICIGGATITACITICAGIGGCIACIGGAIGICITGGGICCGCCAGIC 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCG 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                              Immunotoxin; heavy chain; light chain; variable region; antibody;
ricin-A; cytostatic; cataract; lens opacification; epithelial cell;
pHB19; 4197X; monoclonal antibody; MAb; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCAGAGGAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New single chain immuno:toxin - binds specifically to epithelial cells, for inhibiting development of sec. cataracts after extra:capsular cataract extraction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 16; Length 1979;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          65.0%; Score 269.8; DB 16; Length 94.3%; Pred. No. 5.6e-71; ive 0; Mismatches 17; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1979 BP; 558 A; 426 C; 459 G; 536 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wood MS;
                                                                                                                                                                                                                                                                                                            /15..195
/*tag= b
/note= "phoA signal sequence"
/*tag= c
/*tag= c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wallace TL,
                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                  Anti-cataract immunotoxin in pHB19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HOUS-) HOUSTON BIOTECHNOLOGY INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Fig.4; 68pp; English.
                                   BP.
                                   AAQ85386 standard; DNA; 1979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94WO-US07919.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93US-0101329
                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                   115..1779
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 94.3
Matches 280; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gould RM, Kelleher PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1995-082036/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P-PSDB; AAR70827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-AUG-1993;
                                                                                                                                                                                                                                                                                                                                                                                                              WO9503828-A.
                                                                                                  31-AUG-1995
                                                                                                                                                                                                                                                                                                                 sig_peptide
                                                                                                                                                                                                                                                                                                                                                                  mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                09-FEB-1995
                                                                                                                                                                                                                                   Synthetic.
                                                                   AAQ85386;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               378
 RESULT 13
AAQ85386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             266
                                                                                                                                                                                                                                                                 Key
```

1;

Gaps

<u>ښ</u>

qq

δŏ g ŏ g ò g ò

```
Best Loca
Matches
                                                                                                    112
                                                                                                                                                 172
                                                         52
                                                                                                                         83
                                                                                                                                                                                            232
                                                                                                                                                                                                                  203
                                                                                                                                                                                                                                                                                   352
                                                                                                                                                                                                                                                                                                                              409
                                                                                                                                                                                                                                                                                                                                                     383
                                                                            qq
                                                                                                                                                                    qq
                                                                                                                                                                                                              Dp
                                                                                                                                                                                                                                                          pp
                                                                                                    ò
                                                                                                                                              Qγ
                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                δy
                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                             οy
                                                                                                                                                                                            Óγ
                                                                   351
                                                                                         322
                                                                                                                          323 GAGCTGAAGACACTGGCCTTTATTACTGTACTGGGGGAGTTTGCTAACTGGGGCCAGGGGA 382
143 TTAGTGATGCCTGGATGGACTGGGTCCGCCAGTCTCCAGAGAGGGGGCTTGAGTGGGTTG 202
                                                                                                               GAGCTGAAGACAGTGGAGTTTATTACTGTAC - - - AGATTTCATAGACTGGGGCCAAGGGA 408
                                   Immunoglobulin variable domain; primer; polymerase chain reaction; chimeric antibody; human milk fat globule; BrE-3 VH-chain; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Primers JO2, JO3, JO4, JO14 and VHIBACK (AAQ62765-Q62769) were all used to prepare cDNAs that encode the BrE-3 mouse Ig variable domains. The amplified V-regions lacked constant regions so as to produce less immunogenic polypeptides. A hybrid polypeptide was prepared using human constant regions with the muxine V regions. The chimeric polypeptide estained the binding affinity of BrE-3 for human milk fat globule.
                                                                  292 AGTICACCATCTCAAGAGATGATTCCAAAAGTCGTCTTACCTGCAAATGAACAGCTTAA
                      CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                             a
"BrE-3 VH chain (no termination codon)"
                                                                                                                                                                                                                                                                                                        Murine BrE-3 immunoglobulin heavy chain variable domain cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New analogue peptide(s) comprising antibody variable regions used to develop prods. for use in the detection, diagnosis, therapy and prevention of neoplasms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Peterson JA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 403 BP; 105 A; 73 C; 113 G; 112 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                               58..402
/*tag= b
/product= heavy_chain_V-region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Do Couto FJR, Padlan EA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RES FUND CONTRA COSTA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 11; Page 48; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                       AAQ62775 standard; cDNA; 403 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            92US-0977696.
93US-0129930.
93US-0134346.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         93WO-US11445.
                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                     /note=
58..402
                                                                                                                                                                                                                                                                                                                                                                                               1..402
/*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1994-183510/22
                                                                                                                                                                       | || || || CTCTGGT 389
                                                                                                                                                          CACTAGT 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CANC-) CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-NOV-1992;
30-SEP-1993;
08-OCT-1993;
                                                                                                                                                                                                                                                                                                                                                               Mus musculus
                                                                                                                                                                                                                                                                                   24-JAN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ceriani RL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9411509-A
                                                                                                                                                                                                                                                                                                                                                                                                                                mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-MAY-1994
                                                                                                                                                                                                                                                            AAQ62775;
                      232
                                           203
                                                                                        263
                                                                                                              352
                                                                                                                                                          409
                                                                                                                                                                               383
                                                                                                                                                                                                                                                                                                                                                                                     Key
                                                                                                                                                                                                                             AAQ6277
                                           g
                                                                                    qq
                                                                                                             à
                                                                                                                               qq
                                                                                                                                                                                                                                                              ò
                                                                 ò
                                                                                                                                                         ŏ
                                                                                                                                                                             g
```

```
ij
                                                                                                                                                                                                291
                                                                                                                                                                                                                                                                                                                                                                    263 GGTTCACCATCTCAAGAGATGATTCCAAAGTAGAGTGTACCTGCAAATGATAAGCTTAA 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGCTGAAGACAGTGGAGTTTATTACTGTAC -- - AGATTTCATAGACTGGGGCCAAGGGA 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTT 171
                                                                                                                                                                                                                                                          TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAGGGGGCTTGAGTGGGTTG 231
                                                                                                                                                                                                                                                                                                                                                                                                                              292 AGTICACCATCTCAAGAGATGATTCCAAAAGTCGTCTTACCTGCAAATGAACAGCTTAA 351
                                           Gaps
                                                                                   TITITITITATESTECTTTTAAAAGGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAG 111
                                                                                                            CTGAAATTAGATTGAAATCTGATAATTATGCAACAACATTATGCGGAGTCTGTGAAAGGGA
  DB 15; Length 403;
Score 269.4; DB 15; Length
Pred. No. 4.1e-71;
0; Mismatches 51; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Search completed: April 26, 2003, 05:05:43
Job time : 86.4911 secs
y Match 64.9%;
Local Similarity 85.3%;
hes 313; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | || || || CTCTGGT 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACTAGT 415
    Query Match
```

```
TYPE: DNA
CORGANISM: SCID Mice
US-09-564-329A-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-564-329A-14
196.2
196.2
196.2
194.8
193.2
191.6
189.8
                                                                                                                                                                                                                                                                                       187.4
186.8
186.8
1186.8
1185.8
1185.8
1185.8
1185.6
1185.6
1185.6
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.1
1185.
                                                                                                                                                                                                                                                                                   187.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3, Appli
6, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1, Appli
Sequence 5, Appli
Sequence 4, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 14, App
                                                                                                                                                                                                                                                     (without alignments)
11258.801 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 14, P. Sequence 14, P. Sequence 14, P. Sequence 3, Ag. Sequence 3, Ag. Sequence 1, Ag. Sequence 5, Ag.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4, P
Sequence 4, P
Sequence 4, P
Sequence 4, P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 4, 1
Sequence 4, 1
Sequence 4, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Description
                                                                                                                                                                                                               April 26, 2003, 07:27:07; Search time 40.1085 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                   1 aagetttacagttactcage......tggggccaagggacactagt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/VS08_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/VS08_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/VS08_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/VS08_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/VS08_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/VS08_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/VS09_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/VS09_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /cgn2_6/ptodata/1/pubpna/US60_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*
GenCore version 5.1.4_p5_4578
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0.50 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 - 0.9 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-756-301A-4
US-09-927-703-4
US-09-766-535A-4
US-09-756-161A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-564-329A-14
US-09-855-153-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-044-534-4
US-09-840-459-96
US-09-840-459-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-010-229-4
US-10-043-450-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             709820 seqs, 544064369 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Published_Applications_NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                               nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          110
110
110
110
110
110
110
110
110
                                                                                                                                                                                                                                                                                                                                                               US-09-674-716B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  74.8
74.8
74.8
74.8
74.8
74.8
65.4
663.5
663.5
61.7
61.7
61.7
61.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score
                                                                                                                                                                                                                                                                                                                                                                                                     Perfect score:
                                                                                                                                                   OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                       Sednence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š.
```

## ALIGNME

```
UGS-09-564-329A-14

J Sequence 14, Application US/09564329A

Patent No. US2010055751A1

GENERAL INCREMATION

APPLICANT: Raite, Owen N.

APPLICANT: Raite, Owen N.

APPLICANT: Saffran, Douglas C.

TITLE OF INVENTION: PSCA PROSTATE STEM CELL ANTIGEN AND USES THEREOF

FILE REPERENCE: 30435.54051A

CURRENT APPLICATION NUMBER: US/09/564,329A

CURRENT FILING DATE: 1299-07-20

PRIOR PLICATION NUMBER: 00/71,141

PRIOR PLICATION NUMBER: 60/70-10

PRIOR APPLICATION NUMBER: 60/71,141

PRIOR PLICATION NUMBER: 60/113,30

PRIOR PLICATION NUMBER: 60/113,30

PRIOR PLICATION NUMBER: 60/120,566

PRIOR PLICATION NUMBER: 60/120,566

PRIOR FILING DATE: 1999-02-17

PRIOR PLICATION NUMBER: 00/130,30

PRIOR PLICATION NUMBER: 00/120,566

PRIOR PLICATION NUMBER: 00/120,566

PRIOR PLICATION NUMBER: 00/120,566

PRIOR PLICATION NUMBER: 00/20,399

PRIOR PLILING DATE: 1999-03-10

PRIOR PLING DATE: 1999-03-1
```

ö

```
Length 453;
                                              26; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 310.4; DB 10;
Pred. No. 1.4e-87;
); Mismatches 26; 1
            Score 310.4; DB J
Pred. No. 1.4e-87;
0; Mismatches 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              74.8%; Scor
92.6%; Pred
0; h
          74.8%;
92.6%;
                                          Matches 326; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 92.69
Matches 326; Conservative
                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: SCID Mice
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-854-811-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-854-811-14
            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                            Best Local
                                                                                                                                                                                                               155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    186
                                                                                                                                               ŏ
                                                                                                                                                                             g
                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                               Ωÿ
                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ōλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Watte, Nowen N.
APPLICANT: Watte, Owen N.
APPLICANT: Watte, Owen N.
APPLICANT: Saffran, Douglas C.
TITLE OF INVENTION: PSCA PROSTATE STEM CELL ANTIGEN AND USES THEREOF
FILE REFRENCE: 30435.540S14
CURRENT FILING DATE: 2001-05-14
PRIOR APPLICATION NUMBER: 09/564,329
PRIOR PELICATION NUMBER: 09/564,329
PRIOR FILING DATE: 2000-05-03
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1998-01-12
PRIOR FILING DATE: 1998-01-12
PRIOR FILING DATE: 1998-01-12
PRIOR FILING DATE: 1998-02-13
PRIOR FILING DATE: 1999-02-17
PRIOR FILING DATE: 1999-03-16
PRIOR FILING DATE: 1998-12-02
PRIOR FILING DATE: 1998-12-02
PRIOR FILING DATE: 1998-12-02
PRIOR FILING DATE: 1998-12-02
PRIOR FILING DATE: 1998-03-16
PRIOR FILING DATE: 1998-12-02
PRIOR APPLICATION NUMBER: 09/208,503
PRIOR FILING DATE: 1999-05-25
PRIOR APPLICATION NUMBER: 09/208,503
PRIOR FILING DATE: 1999-05-25
                                                                                                                                     95 GCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGT 154
                                                                                                                                                      155 AGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGGCCAGTCTCCAGAGAA 214
                                                                                                                                                                                                                          GGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGTCTCTACCT 334
                                                                                   35 CATGGATTTTGGGCTGATTTTTTTTTTTTTTTTAAAAGGGGTCCAGAGTGAAGTGAA 94
                                                                                                                                                                                                                                                                                      GGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGC
                                       ;
        Length 453;
                                                                                                                                                                                                                                                                                                                                                                                                         335 GCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGAT 386
                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
     DB 10;
                                       26;
Score 310.4; DB
Pred. No. 1.4e-87
                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 14, Application US/09855153
Patent No. US20020102666A1
GENERAL INFORMATION:
   74.8%;
92.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Reiter, Robert E.
                                 Matches 326; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 27
SOFTWARE: Patentin Ver.
SEQ ID NO 14
LENGTH: 453
                   Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: SCID Mice
US-09-855-153-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 2
US-09-855-153-14
 Query Match
                                                                                                                                                                                                                                                                                                                                        275
                                                                   ò
                                                                                                                                      õ
                                                                                                                                                                   g
                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                       q
```

```
Sequence 14, Application US/09854811
| Patent No. US20020119157A1 |
| GENERAL INFORMATION:
| APPLICANT: Reiter, Robert E. |
| APPLICANT: Witte, Owen N. |
| APPLICANT: Saffran, Douglas C. |
| TILLE OF INVENTION: PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF ITLE OF INVENTION: PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF CURRENT APPLICATION NUMBER: US/09/854,811 |
| CURRENT APPLICATION NUMBER: 09/564,329 |
| PRIOR FILING DATE: 2000-05-03 |
| PRIOR FILING DATE: 1999-07-20 |
| NUMBER OF SEQ ID NOS: 27 |
| SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                              Gaps
                                                                                                                              95 GCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCTGTGT 154
                                   35 CATGGATTTTGGGCTGATTTTTTTTTTTTTTAAAAGGGGTCCAGAGTGAAGTGAA 94
                                                                                6 CTTCGGGTTGAGCTGGGTTTTTATTATTGTTCTTTTAAAAGGGGTCCGGAGTGAAGTGAG 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    155 AGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAA 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGCCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGC 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95 GCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGT 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          35 CAIGGATTITGGGCTGATTTTTTTTTTTTTTTTAAAGGGGTCCCAGAGTGAAGG
                                                                                                                                                                                                                                                                                                           215 GGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGC
                                                                                                                                                                                                                                                                                                                                                                                                    275 GGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGTCTTACCT
                                                                                                                                                                                                                                                                                                                                                                                                                           AGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAA
                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            335 GCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGAT 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 453;
```

ö

```
APPLICANT: WILEGO OWEN
APPLICANT: WILEGO OWEN
APPLICANT: WILEGO OWEN
TITLE OF INVENTION: PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF
FILE REFERENCE: 30435.540514
CURRENT APPLICATION NUMBER: US/09/963,620
PRIOR PELICATION NUMBER: 09/544,329
PRIOR PELICATION NUMBER: 09/544,329
PRIOR PELICATION NUMBER: 09/359,326
PRIOR FILING DATE: 1997-07-20
PRIOR PELICATION NUMBER: 06/071,141
PRIOR PELICATION NUMBER: 60/071,141
PRIOR PELICATION NUMBER: 60/071,141
PRIOR PELICATION NUMBER: 60/071,141
PRIOR PELICATION NUMBER: 60/13,230
PRIOR PELICATION NUMBER: 60/13,230
PRIOR PELICATION NUMBER: 60/120,536
PRIOR PELICATION NUMBER: 60/120,536
PRIOR PELICATION NUMBER: 60/120,536
PRIOR PELICATION NUMBER: 60/120,536
PRIOR PELICATION NUMBER: 09/203,939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95 GCTTGAGGAGTCTGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGT 154
                               275 GGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAAGTCGTCTTACCT 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               35 CATGGATTTTGGGCTGATTTTTTTTTTTTTTTTAAAAGGGGTCCAGAGTGAAGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 453;
                                                                                                                      335 GCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGAT 386
                                                                                                                                                      DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .4e-87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            74.8%; Score 310.4; 92.6%; Pred. No. 1.4
                                                                                                                                                                                                                                                                                                                                         Sequence 14, Application US/09963620 Patent No. US20020141941A1
                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Reiter, Robert E.
APPLICANT: Witte, Owen N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 74.89
Best Local Similarity 92.69
Matches 326; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
CORGANISM: SCID Mice
US-09-963-620-14
                                                                                                                                                                                      306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ΩD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qγ
                                                               qq
                                                                                                                               Óλ
                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: MILLE, OWEN N.
APPLICANT: MAILE, OWEN N.
APPLICANT: MAILE, OWEN N.
TITLE OF INVENTION: POSCIA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF
FULLE REFERENCE: 30435-540514
CURRENT APPLICATION NUMBER: US/09/934,773
CURRENT PELLING DATE: 2001-08-21
PRIOR PELLICATION NUMBER: 09/564,329
PRIOR FILING DATE: 1999-07-20
PRIOR APPLICATION NUMBER: 09/359,326
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-20
PRIOR FILING DATE: 1999-07-31
PRIOR FILING DATE: 1998-01-12
PRIOR FILING DATE: 1998-02-13
PRIOR FILING DATE: 1998-02-13
PRIOR PELCATION NUMBER: 60/13,230
PRIOR FILING DATE: 1998-12-21
PRIOR FILING DATE: 1999-03-16
PRIOR FILING DATE: 1999-03-10
PRIOR FILING DATE: 1999-03-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               66 GCTTGAGGAGTCTGGAGGCTGGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTT 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         155 AGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAA 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               215 GGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGC 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95 GCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGT 154
                                               6 CTTCGGGTTGAGCTGGGTTTTTATTATTGTTCTTTTAAAAGGGGTCCGGAGTGAAGTGAG 65
            275 GGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAAGTCGTCTCTACCT 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         35 CATGGATTITGGGCTGATTTTTTTTTTTTTTTTAAAAGGGGTCCAGAGTGAAGGGA 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 10; Length 453;
                                                                                                                                                               26; Indels
                                                                                                                                   335 GCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.4e-87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ouery Match 74.8%; Score 310.4; Best Local Similarity 92.6%; Pred. No. 1.4e Matches 326; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                               Sequence 14, Application US/09934773 Patent No. US20020136689A1
                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Reiter, Robert E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS: 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; ORGANISM: SCID Mice US-09-934-773-14
                                                                                                                                                                                                                                                                                                                                                                                                            ; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                   US-09-934-773-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D ID NO 14
LENGIH: 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
                                                                                                                                                                                            306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                         원
                                                                                                                                   ŏ
                                                                                                                                                                                         셤
               δ
```

```
APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6
                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           рp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ΩD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
275 GGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAAGTCGTCTCTACCT 334
                  GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       207 CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCIGIGIAGCCICTGGATTTACTTICAGIGGCTACTGGATGTCTTGGGICCGCCAGTCT 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGAT 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                          Sequence 3, Application US/09883758
Patent No. US20202058804A1
Fatent Shabat, Doron
APPLICANT: Rabat, Doron
APPLICANT: Red; Benjamin
APPLICANT: Reframin
FILE REFERENCE: PLF0011S
CURRENT PLLICATION: PROBRUG ACTIVATION USING CATALYTIC ANTIBODIES
CURRENT PLLICATION NUMBER: US/09/883,758
CURRENT FILING DATE: 2010.106-18
PRIOR APPLICATION NUMBER: US/09/318,661
PRIOR FILING DATE: 1999-05-25
NUMBER OF SEQ ID NOS: 6
SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               65.4%; Score 271.6; DB 10; Length 856; 92.3%; Pred. No. 3e-75; live 0; Mismatches 24; Indels 0;
                                                         335 GCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGAT 386
                                                                          OTHER INFORMATION: Description of Artificial Sequence: Nu OTHER INFORMATION: residue sequence of catalytic fragment.
NAME/KEY: CDS
LOCATION: (1).(855)
US-09-883-758-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-883-758-6/c
; Sequence 6, Application US/09883758
; Patent'No. US20020058804A1
; GENERAL INFORMATION:
; APPLICANT: Barbas III, Carlos F.
                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    387 TICATAGACT 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   760 TATTTTACT 769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Simi
Matches 286;
                                                                                                                                              US-09-883-758-3
                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
                              a
 ò
                                                            ò
                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    οq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŏ
```

```
87 GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   207 CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        267 CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     147 TCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGAT 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1, Application US/09883758
Fatent No. US20020058804A1
Fatent No. US20020058804A1
Fatent No. US20020058804A1
FAPPLICANT: Barbas III, Carlos F.
APPLICANT: Shabat, Doron
APPLICANT: ARder, Christoph
APPLICANT: List, Benjamin
APPLICANT: Lerner, Richard A.
TITLE OF INVENTION: PRODRUG ACTIVATION USING CATALYTIC ANTIBODIES
FILE REPERBNCE: PLEO011S
CURRENT APPLICATION NUMBER: US/09/883,758
CURRENT FILING DATE: 1099-05-25
PRIOR PRLING DATE: 1999-05-25
                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: Description of Artificial Sequence: Nucleotide ; OTHER INFORMATION: residue sequence of catalytic fragment. US-09-883-758-6
                                                            APPLICANT: Lerner, Richard A.
TITLE OF INVENTION: PRODRUG ACTIVATION USING CATALYTIC ANTIBODIES
FILE REPERENCE: PLE0011S
CURRENT APPLICATION NUMBER: US/09/883,758
CURRENT FILING DATE: 2001-06-18
PRIOR APPLICATION NUMBER: US/09/318,661
PRIOR FILING DATE: 1999-05-25
NUMBER OF SEQ ID NOS: 6
SOFTWARE: PATENTIN VET. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 65.4%; Score 271.6; DB 10; Length 856; 92.3%; Pred. No. 3e-75; live 0; Mismatches 24; Indels 0;
                                                                                                                                                                                                                                                                                                                       TYPE: DNA ORGANISM: Artificial Sequence
                     Rader, Christoph
List, Benjamin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 92.3
Matches 286; Conservative
Shabat, Doron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 6
SOFTWARE: Patentin Ver.
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TICATAGACT 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATTTTACT 88
                                                                                                                                                                                                                                                                            SEQ ID NO 6
LENGTH: 856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-883-758-1
                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE
```

Ŋ

```
CTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGAT 386
                                                                                                                87 GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT
                      GENERAL INFORMATION:

APPLICANT: Vilcek, Jan
APPLICANT: Vilcek, Jan
APPLICANT: Vilcek, Jan
APPLICANT: Siegel, Socut
TITLE OF INVENTION: Anti-TYP Antibodies and Peptides of
TITLE OF INVENTION: Anti-TYP Antibodies and Peptides of
TITLE OF INVENTION: Anti-TYP Antibodies and Peptides
CURRENT APPLICATION NUMBER: US/10/043,432
CURRENT APPLICATION NUMBER: US/927,703
PRIOR APPLICATION NUMBER: US. 09/756,398
PRIOR RILING DATE: 2001-08-10
PRIOR RILING DATE: 1994-01-08
PRIOR FILING DATE: 1994-02-04
PRIOR FILING DATE: 1994-10-18
PRIOR FILING DATE: 1994-02-04
PRIOR PILING DATE: 1994-02-04
PRIOR FILING DATE: 1994-02-04
PRIOR PILING DATE: 1993-02-02
PRIOR FILING DATE: 1993-02-02
PRIOR FILING DATE: 1993-02-02
PRIOR PILING DATE: 1992-03-11
PRIOR PILING DATE: 1992-03-11
PRIOR PILING DATE: 1992-03-12
PRIOR FILING DATE: 1993-02-02
PRIOR FILING DATE: 1992-03-13
PRIOR FILING 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      oę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61.7%; Score 256; DB 9; I 91.6%; Pred. No. 1.6e-70; Live 0; Mismatches 25;
                                                                                                                                                                                                                                                                                                                                                     Sequence 4, Application US/10043432; Publication No. US20030054004A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best_Local Similarity 91.6
Matches 271; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         , NAME/KEY: CDS
; LOCATION: (1)...(357)
US-10-043-432-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Mus Balb/c
                                                                                                                                                                                       387 TTCATAGACT 396
                                                                                                                                                                                                                                     TATTTTACT 125
                                                                                                                                                                                                                                                                                                                                 US-10-043-432-4
                                                                                           327
267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                           q
                                                                                                                                  qq
                                                                                           δ
                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ó
                                                                                                                                         ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               266
                                                                                                                                                                                                                                                                                                                                 585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -87 GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                       87 GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                   147 TCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT 206
                                                                                                                                                                                                                                                                                                                                                                               CCAGAGAAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             267 CATTATGCGGAGTCTGTGAAAGGGGAAGTTCACCATCTCCAAGAGATGATTCCAAAAGTCGT 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Barbas III, Carlos F.
APPLICANT: Brabat, Doron
APPLICANT: Shabat, Doron
APPLICANT: Rader, Christoph
APPLICANT: List, Benjamin
APPLICANT: List, Benjamin
APPLICANT: List, Benjamin
APPLICANT: Lerner, Richard A.
ITILE OF INVENTION: PRODRUG ACTIVATION USING CATALYTIC ANTIBODIES
FILE REFERENCE: PREPORIS
CURRENT APPLICATION NUMBER: US/09/883,758
CURRENT FILING DATE: 2001-06-18
PRIOR APPLICATION NUMBER: US/09/318,661
PRIOR PILING DATE: 1999-05-25
NUMBER OF SEQ ID NOS: 6
SOFTWARRE: Patentin Ver. 2.1
SEQ ID NO S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCTGTGTAGCCTCTGGATTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAGAGAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 10; Length 899;
                                                                                           Length 899;
                                                                                         Score 263.6; DB 10; Length
Pred. No. 9.9e-73;
0; Mismatches 29; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         63.5%; Score 263.6; DB 1
90.6%; Pred. No. 9.9e-73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 5, Application US/09883758 Patent No. US20020058804Al GENERAL INFORMATION:
                                                                                           Query Match 63.5%;
Best Local Similarity 90.6%;
Matches 281; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 90.6
Matches 281; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; ORGANISM: Mus musculus US-09-883-758-5
; NAME/KEY: CDS
; LOCATION: (1)..(897)
US-09-883-758-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  387 ITCATAGACT 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             766 TATTTTACT 775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 9
US-09-883-758-5/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     147
                                                                                                                                                                                                                                                                                                                                                                                                                            286
                                                                                                                                                                                                                                                                                                                                                                            207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δλ
                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                            ò
```

ဖ

```
TCCTGTGTAGCCTCTGGATTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT 206
                                                                                                                         CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 326
                                                                                                                                                                                           CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 266
GAAGTGAAGCTTGAGGAGTCTGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 60
                                                                                                                                                                                                                                                             241 GTCTACCTGCAAATGACCGACTTAAGAACTGAAGACACTGGCGTTTATTACTGTTC 296
                                                                                                                                                                                                                                            327 CTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTAC 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 357;
                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANY: Daddona, Peter APPLICANY: Daddona, Peter APPLICANY: Ghrayeb, John APPLICANY: Ghrayeb, John APPLICANY: Siegel, Scott APPLICANY: Siegel, Scott TTLE OF INVENTION: Human Tumor Necrosis Factor FILE REFERENCE: 0975.1005-013
CURRENT APPLICATION NUMBER: US. 09/756,398
PRIOR APPLICATION NUMBER: U.S. 09/756,398
PRIOR PELICATION NUMBER: U.S. 09/736,1109
PRIOR FILING DATE: 1998-081.2
PRIOR PELICATION NUMBER: U.S. 08/70,674
PRIOR PELICATION NUMBER: U.S. 08/70,674
PRIOR PELICATION NUMBER: U.S. 08/324,799
PRIOR PELICATION NUMBER: U.S. 08/324,799
PRIOR PELICATION NUMBER: U.S. 08/192,003
PRIOR PELICATION NUMBER: U.S. 08/192,03
PRIOR PELICATION NUMBER: U.S. 08/013,413
PRIOR PELICATION NUMBER: U.S. 08/018,783,606
PRIOR PELICATION NUMBER: U.S. 08/018,783,606
PRIOR PELICATION NUMBER: U.S. 07/670,827
PRIOR APPLICATION NUMBER: U.S. 07/670,827
PRIOR APPLICATION NUMBER: U.S. 07/670,827
PRIOR PERIOR PELICATION NUMBER: U.S. 07/670,827
PRIOR APPLICATION NUMBER: U.S. 07/670,827
PRIOR PELICATION NUMBER: U.S. 07/670,827
PRIOR PELICATION NUMBER: U.S. 07/670,827
PRIOR PERIOR PELICATION NUMBER: U.S. 07/670,827
PRIOR PELICATION NUMBER: U.S. 07/670,827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 256; DB 10; Length 3:
Pred. No. 1.6e-70;
0; Mismatches 25; Indels
                                                                                                                                                                                                                                                                                                                                                               Sequence 4, Application US/09927703 Patent No. US20020022720A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ouery Match 61.7%;
Best Local Similarity 91.6%;
Matches 271; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ), NAME/KEY: CDS
; LOCATION: (1)...(357)
US-09-927-703-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: Mus Balb/c
                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                               RESULT 12
US-09-927-703-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 4
                                   147
                                                                    61
                                                                                                      207
                                                                                                                                        121
                                                                                                                                                                          267
                                ò
                                                                QΩ
                                                                                                    δy
                                                                                                                                g
                                                                                                                                                                        ò
                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ó
                                                                                                        147 TCCTGTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCGGTCT 206
                                       61 TCCTGTGTTGCCTCTGGATTCATTTTCAGTAACCACTGGATGAACTGGGTCGGCCGCCAGTCT 120
                                                                                                                                                         CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                     CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 357;
                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 256; DB 10;
Pred. No. 1.6e-70;
0; Mismatches 25;
                                                                                                                                                                                                                                                                                                                                                Sequence 4, Application US/09756301A Patent No. US20010027249A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 61.7%;
Best Local Similarity 91.6%;
Matches 271; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; LOCATION: (1)...(357)
US-09-756-301A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA ORGANISM: MUS Balb/c
                                                                                                                                                                                                                                                                                                              RESULT 11
US-09-756-301A-4
                                                                                                                                                         267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      87,
                                                                                     207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ô
                                                 g
                                                                                                                 g
                                                                                                                                                       ò
                                                                                                                                                                                 g
                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                         q
                  à
                                                                                     à
```

ö

.; 0

Gaps

q φy g ŏ g δy Db

δ

δ qq

```
207 CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 266
                                                                                                                                                                                                                                                                                                                             267 CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 326
                                                        87 GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                       147 TCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 GTCTACCTGCAAATGACGACTTAAGAACTGAAGACACTGGCGTTTATTACTGTTC 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 327 CTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTAC 382
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 10; Length 357;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:

APPLICANT: Lot, Junming
APPLICANT: Lot, Junming
APPLICANT: Vilcek, Jan
APPLICANT: Lot, Junming
APPLICANT: Steed, John
APPLICANT: Steed, John
APPLICANT: Steed, John
APPLICANT: Steed, Scott
TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of
TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of
TITLE OF INVENTION: Anti-TNF Antibodies and Peptides
CURRENT APPLICATION NUMBER: US/09/756,161A
CURRENT APPLICATION NUMBER: US. 09/133,119
PRIOR FILING DATE: 1998-08-12
PRIOR PILING DATE: 1998-12-11
PRIOR PILING DATE: 1994-10-18
PRIOR FILING DATE: 1994-10-18
PRIOR FILING DATE: 1994-10-18
PRIOR PLING DATE: 1994-02-04
PRIOR PLING DATE: 1994-02-04
PRIOR PLING DATE: 1994-02-04
PRIOR APPLICATION NUMBER: U.S. 08/192,03
PRIOR APPLICATION NUMBER: U.S. 08/13,413
PRIOR FILING DATE: 1993-02-04
PRIOR FILING DATE: 1993-01-29
PRIOR PELING DATE: 1993-02-04
PRIOR FILING DATE: 1993-03-08
PRIOR PILING DATE: 1993-03-08
PRIOR FILING DATE: 1993-03-08
PRIOR FILING DATE: 1993-03-08
PRIOR PILING DATE: 1993-03-08
PRIOR FILING DATE: 1993-03-08
PRIOR PRIOR FILING DATE: 1993-03-08
PRIOR PRIOR PRIOR DATE: 199
25; Indels
   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61.7%; Score 256;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4, Application US/09756161A Patent No. US20020132307A1
      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
ORGANISM: MUS Balb/c
FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; LOCATION: (1)...(357)
US-09-756-161A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
US-09-756-161A-4
      Matches 271;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                Db
                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                 δλ
                                                                                                                                                                                                                                                                                                                                                                                                                    Ω
                                                                                                                                                                                                                                                                                                       207 CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 266
                                                                                                                                                                                                                                                                                                                                                                                           CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 326
                                     87 GAAGTGAAGCTTGAGGAGTCTGGAGGAGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                 1 GAAGTGAAGCTTGAGGAGTCTGGAGGAGCTTGGTGCAACCTGGAGGATCCATGAACTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 357;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: V1LOEK, Jan
APPLICANT: Daddona, Peter
APPLICANT: Ghrayeb, John
APPLICANT: Knight, David M.
APPLICANT: Siegel, Scott
TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of
TITLE OF INVENTION: Anti-TNF Antibodies and Peptides
CURRENT FILING DATE: 1994-02
PRIOR PILING DATE: 1994-02-04
PRIOR FILING DATE: 1994-02-04
PRIOR FILING DATE: 1994-02-04
PRIOR PILING DATE: 1994-02-04
PRIOR PILING DATE: 1994-02-04
PRIOR PILING DATE: 1994-02-04
PRIOR PILING DATE: 1993-01-29
PRIOR FILING DATE: 1993-00-11
PRIOR FILING DATE: 1993-03-18
PRIOR FILING DATE: 1992-09-11
PRIOR FILING DATE: 1992-09-11
PRIOR FILING DATE: 1992-09-18
PRIOR FILING DATE: 1992-09-18
PRIOR FILING DATE: 1991-03-18
PRIOR FILING DATE: 1991-03-18
PRIOR FILING DATE: 1991-03-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 256; DB 10;
Pred. No. 1.6e-70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 19
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 4, Application US/09766535A Patent No. US20020106372A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61.7%;
91.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ...(357)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Mus Balb/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; LOCATION: (1)
US-09-766-535A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
US-09-766-535A-4
                                                                                                                                                           147
                                                                                                                                                                                                                                                                                                                                                                                               267
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                    GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                         TCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT 206
                                                                                                                          CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 326
                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           87 GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    147 recrerendedecreregarthretreneregeareregargreregegeegeger 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 CCAGAGAAGGGCTTGAGTGGGTTGCTGAAATTAGATCTAAAATCTATTAATTCTGCAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          327 CTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTAC 382
                                                                                                                                                                                                                                                                                                                207 CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 357;
   Pred. No. 1.6e-70;
0; Mismatches 25; Indels
                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 4, Application US/10010229.

Patent No. US20020114805A1

GENERAL INFORMATION:

APPLICANT: Le, Junming

APPLICANT: Vilcek, Jan

APPLICANT: Ghrayeb, John

APPLICANT: Ghrayeb, John

APPLICANT: Siegel, Scott

TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of

TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of

TITLE OF INVENTION: Auman Tumor Necrosis Factor

TITLE OF INVENTION: AUman Tumor Necrosis Factor

TITLE REFERENCE: 0975.1005-013

CURRENT APPLICATION NUMBER: US/10/010,229

CURRENT APPLICATION NUMBER: US/09/927,703

PRIOR FILING DATE: 2001-08-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 256; DB 12;
Pred. No. 1.6e-70;
0; Mismatches 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 19
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
 91.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ouery Match 61.7%;
Best Local Similarity 91.6%;
Matches 271; Conservative
Best Local Similarity 91.6
Matches 271; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; NAME/KEY: CDS
; LOCATION: (1)...(357)
US-10-010-229-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA ORGANISM: Mus Balb/c
                                                                                                                                                                                                                                                                                                                                                                                         US-10-010-229-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ID NO 4
                                                                                                         147
                                                                                                                                       61
                                                                                                                                                                                                                                  267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                         q
                                                                                                           ô
                                                                                                                                     셤
                                                                                                                                                                    ò
                                                                                                                                                                                                g
                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

```
Search completed: April 26, 2003, 09:24:04 Job time: 43.1085 secs
 δλ
             QQ
```

-

```
Sequence 12, Appl
Sequence 12, Appl
Sequence 17, Appl
Sequence 1, Appli
Sequence 5, Appli
Sequence 65, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3, Appli
Sequence 6, Appli
Sequence 12, Appl
Sequence 12, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25, Appl
4, Appli
4, Appli
4, Appli
4, Appli
2, Appli
                                                                                                                                                     April 26, 2003, 04:57:16; search time 17.1893 Seconds (without alignments) 7404.053 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                             US-09-674-716B-1
415
1 aagetttacagttactcage......tgggggccaagggacactagt 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence Sequence 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /cgn2_6/ptodata/1/ina/5A_COMB.seg:*
/cgn2_6/ptodata/1/ina/5B_COMB.seg:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/PcTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/PcTUS_COMB.seq:*
GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-318-661-3

US-07-318-661-6

US-07-318-661-6

US-08-129-930B-12

US-08-76-288A-12

US-08-76-128-27

US-08-76-128-27

US-09-318-661-1

US-09-318-661-1

US-09-318-661-1

US-09-318-661-1

US-09-318-661-1

US-09-318-661-1

US-08-129-930B-65

US-08-129-930B-65

US-08-129-930B-65

US-08-129-930B-65

US-08-129-102-4

US-08-132-102-4

US-08-132-102-4

US-08-133-119-4

US-08-468-661-2

US-08-468-661-2

US-08-468-661-2

US-08-468-661-2

US-08-468-661-2

US-08-471-771-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     441362 segs, 153338381 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                           nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                        IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Issued_Patents_NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB seq length: 0 Maximum DB seq length: 20000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   126436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    269.4
269.4
269.4
267.8
267.8
263.6
263.6
263.6
263.6
253.6
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
256.8
                                                                                                                                                                                                                                                                   Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                             OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Searched:
                                                                                                                                                                                                                                                                                                                        Sequence:
                                                                                                                                                                ou:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
9
                                                                                                                                                                Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ပ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 υ
```

Appl Appl Appl Appl Appl Appl Appl Appl		146 519 206 579 266 639 326 699 386
222 222 222 222 222 223 223 223 223 223	·	
	NTIBODIES   Nucleotid t. h 856;	ACT ACT ACT ACT ACT ACT ACT ACT
nence	Bob.:.leoi	GAAAGCCAAAGCCAAAGCCAAAGCCAAAGCCAAAGCCAAAGCCAAAGCCAAAGCAAAAGCAAAAGCAAAAGCAAAAAA
sedneuce Sed	ANTIBODIE  Nucleoti int.  th 856;	CATE OF THE OF T
•	USING CATALYTIC ANY  ficial Sequence: N  catalytic fragment  1.6; DB 4; Length  1.6; DB 4; Length  1.7e-72;  tches 24; Indels	GAAGTGAAGCTTGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC  [
222 222 222 222 222 112 112 112 114 114	NG CP alytic	CAAA CAAA TIGG TIGG TICA TICA TICA TICA TICA
9-166-750-22 9-166-093-22 9-17-2019-22 9-166-094-22 US93-11138-13 8-392-338A-12 9-17-2019-12 9-166-094-12 8-392-338A-14 9-166-093-14 9-166-093-14 9-166-093-14 9-166-093-14	ALIGNMENTS  18661  S.F.  S.CTIVATION USING  S.709/318,661  -25  on of Artificial equence of catal.  Score 271.6; I Pred. No. 1.7e  O: Mismatches	GTG GTG GTG TTC TTC TTC TTC TTC GAC
2022-1022-1022-1022-1022-1022-1022-1022	ALIGNMENT  1  VATION US  /318,661  f Artific nce of ca ore 271.6 ed. No. 1 Mismatch	1116 1116 106 106 1111 1111 1111 1111
9-11-6-11-6-11-6-11-6-11-6-11-6-11-6-11	LIGI	666C 66C 66C 66A 6AA 6AA 6CT 6CT
US-09-01-01-01-01-01-01-01-01-01-01-01-01-01-	B661 F. CTIVAT 709/311 25 n of A quence Score Pred. 0, Mi	
	rlos F.  ph d A.  uG ACTI uG ACTI uG ACTI 1 1 1 1 1 1 48; Sc 33; Pr	GGA 
	US/0931. US/0931. Dar Carlos Dar hard A. DSRUG A. US. 999-05-6-6 C.1. C.1. C.1. Criptio idue se ive se	NTTA NTTA NTTA NTTA NTTA NTTA NTTA NTTA
7338 7338 7444 7444 7611 7611 770 770	ESULT 1 S-09-318-661-3 Sequence 3, Application US/09318 Patent No. 6268488 GBNERAL INFORMATION: APPLICANT: Barbas III, Carlos APPLICANT: Shabat, Doron APPLICANT: List, Benjamin APPLICANT: List Benjamin APPLICANT: List Benjamin APPLICANT: List Benjamin APPLICANT: Lerner, Richard A. FILE REFERENCE: PLEO0115 CURRENT APPLICATION NUMBER: US, CURRENT FILING DATE: 1999-05-3 NUMBER OF SEQ ID NOS: 6 SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 3 LENGTH: 856 TYPE: DNA ORGANISM: Artificial Sequence FEATURE: OTHER INFORMATION: Cesidue Sec NAME/KEY: CDS LOCATION: (1)(855) SC-09-318-661-3 QUETY MATCh BEST LOCAL Similarity 92.3%; MATCHES 286; CONSEIVATION:	
$\omega$	olicatio 4488 4488 1788 II abat, Dabat, Ber Ch st. Ben Ch MI PLEF MI P	3CT 3CT 4 6GT 6GG 6GG 6GG 6GG 6GG 6GG 6GG
	ULT 1  199-318-661-3  19quence 3, Applicati Extent No. 626648  APPLICANT: Barbas I  APPLICANT: Shabat, APPLICANT: Shabat, APPLICANT: Lerner, TITLE OF INVENTION: FILE REFERENCE: PLE  APPLICANT: Lerner, TITLE OF INVENTION: CURRENT APPLICATION CURRENT APPLICATION CURRENT APPLICATION CURRENT APPLICATION CURRENT APPLICATION CURRENT APPLICATION CURRENT SPECTOR SEQ ID NOS SEQ ID NOS SEGNAME: PATENTING DATE: CURRENT SEG TYPE: DNA OFFER INFORMATION: OTHER	TGAA           TGAT   TGAT             GTGT   GAA   GA
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	11-3 162 A A A A A A A A A A A A A A A A A A A	AAGG AGG CCT CCT CCT CCT CAG ATT ATT ATT TCT
0.000000000000000000000000000000000000	LT 1 quence 3, quence 3, quence 3, quence 3, quence 3, quence 3, pblicanr pplicanr p	
	LT 1  quence tent No pp.1318-6  quence tent No pp.10A pp.10A pp.11CA p	87 460 147 520 207 207 267 327 700
2000 3300 3300 4444 4430 4430 4430 4430	RESULT 1 US-09-31E Sequence Patent APPLIA AP	
	RES C C C C C C C C C C C C C C C C C C C	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

; 0

Sequence 2 Sequence 2 Sequence 2 Sequence 1

US-08-224-591-13 US-08-392-338A-22

244.4 244.4 244.4 2229.4 2229.4

JS-08-926-789-13

Sequence

```
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                 TELEFAX:
                                                                                  COUNTRY:
                                                CITY:
STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 12, Application US/07977696C
Patent No. 57928622
GENERAL INFORMATION:
APPLICANT: Ceriani Dr., Roberto L.
APPLICANT: Cettani Dr., Jerry A.
APPLICANT: Paterson Dr., Jerry A.
APPLICANT: Paterson Dr., Jerry A.
APPLICANT: Paterson Dr., Calardo A.
TITLE OF INVENTION: Analogue Peptides with Specificity
TITLE OF INVENTION: for Carcinomas and Kit and Diagnostic Vaccination
TITLE OF INVENTION: and Therapeutic Methods.
NUMBER OF SEQUENCES: 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      87 GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    147 TCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    267 CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                             Nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Barbas III, Carlos F.
APPLICANT: Shabat, Doron
APPLICANT: Rader, Christoph
APPLICANT: List, Benjamin
APPLICANT: Lerner, Richard A.
TITLE OF INVENTION: PRODRUG ACTIVATION USING CATALYTIC ANTIBODIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 65.4%; Score 271.6; DB 4; Length 856; Best Local Similarity 92.3%; Pred. No. 1.7e-72; Matches 286; Conservative 0; Mismatches 24; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: Description of Artificial Sequence: Nu OTHER INFORMATION: residue sequence of catalytic fragment.
                                                                                                                                                                                                                                                                    FILE REFERENCE: PLECOLIS
CURRENT APPLICATION NUMBER: US/09/318,661
CURRENT FILING DATE: 1999-05-25
NUMBER OF SEQ ID NOS: 6
SOFTWARE: Patentin Ver. 2.1
                                                                                                                          Sequence 6, Application US/09318661
Patent No. 6268488
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA ORGANISM: Artificial Sequence
        387 TTCATAGACT 396
                                       760 TATTTTACT 769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     387 TTCATAGACT 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATTTTACT 88
                                                                                                         US-09-318-661-6/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-07-977-696C-12
                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-318-661-6
                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       207
        ò
                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

```
172 TCAGIGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAAGGGGCTTGAGTGGGTTG 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               292 AGTICACCATCTCAAGAGATGATTCCAAAAGTCGTCTTCTACCTGCAAATGAACAGCTTAA 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      263 GGTTCACCATCTCAAGAGATGATTCCAAAAGTAGAGTGTACCTGCAAATGATAAGCTTAA 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    112 GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      232 CTGAAATTAGATTGAAATCTGATAATTATGCAACACTTATGCGGAGTCTGTGAAAGGGA 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                352 GAGCTGAAGACAGTGGAGTTTATTACTGTAC---AGATTTCATAGACTGGGGCCAAGGGA 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 1; Length 403;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                  MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS 5.0
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/O7/977,696C
FILING DATE: 11-16-92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          64.9%; Score 269.4; DB I
85.3%; Pred. No. 6.2e-72;
Live 0; Mismatches 51
E: PRETTY, SCHROEDER & POPLAWSKI 444 South Flower Street, Suite 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       do Couto Dr., Fernando J.R.
Ceriani Dr., Roberto L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 12, Application US/08129930B
Patent No. 5804187
GENERAL INFORMATION:
APPLICANT: Go Couto Dr., Fernando
APPLICANT: Ceriani Dr., Roberto L.
                                                                                                                                                                                                                                                                                                                                    30,930
                                                                                                                                                                                                                                                                     CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: AMESL Ph.D., VIVIANA
REGISTRATION NUMBER: 30,930
REFERENCE/DOCKET NUMBER: P6
                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                         : (510) 748-6868
(510) 748-6688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 403 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 85.33
Matches 313; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                            TELEX: n.a.
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              single
                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                    Los Angeles
California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | || || CTCTGGT 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         409 CACTAGT 415
                                                                               USA
                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE:
                                                                                                9007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-07-977-696C-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-129-930B-12
```

```
; Patent No. 6315997
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                   ADDRESSEE:
                US-08-976-288A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX:
                                                                                                                                                                                                                                                                                                                   STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      232 CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGCTGAAGACAGTGGAGTTTATTACTGTAC --- AGATTTCATAGACTGGGGCCAAGGGA 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            52 TTTTTTTTTATTGTTCTTTTAAAAGGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAG 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 112 GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCTGTGTAGCCTCTGGATTTACTT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               172 TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAAGGGGCTTGAGTGGGTTG 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            292 AGTTCACCATCTCAAGAGATGATTCCAAAAGTCGTCTTCTACCTGCAAATGAACAGCTTAA 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       143 TTAGTGATGCCTGGATGGACTGGGTCCCCCAGTCTCCAGAGAAGGGGCTTGAGTGGGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 263 GGTTCACCATCTCAAAGAGATGATTCCAAAAGTAGAGTGTACCTGCAAATGATAAGCTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  64.9%; Score 269.4; DB 1; Length 403; 85.3%; Pred. No. 6.2e-72; ive 0; Mismatches 51; Indels 3
                                 TITLE OF INVENTION: Analogue Peptides With Broad TITLE OF INVENTION: Carcinoma Specificity, and Kit and TITLE OF INVENTION: Diagnostic Vaccination and TITLE OF INVENTION: Therapeutic Methods
NUMBER OF SQUENCES: 96
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                       COMPUTER FEADABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: DEADABLE FORM:
COMPUTER: DEADABLE FORM:
COMPUTER: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/129,930B
FILING DATE: September 30, 1993
CLASSIFICATION: 424
ATORNEY/AGENT INFORMATION:
NAME: Amzel Ph.D., Viviana
REGISTRATION NUMBER: 30,930
REFERENCE/DOCKET NUMBER: 30,930
REFERENCE/DOCKET NUMBER: CRECC-008A
TELEPHONE: (510) 521-1333
                                                                                                                                                      ADDRESSEE: V. AMZEL & ASSOC.
STREET: 2055 No. 5804187th Broadway, Suite 201
TITY: Walnut Creek
STATE: California
Peterson Dr., Jerry A.
Padlan Dr., Eduardo A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEX: n.a.
INFORMATION FOR SEQ ID NO: 12:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : (510) 521-1333
(510) 521-3541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 403 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 85.33
Matches 313; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACTAGT 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               383 CTCTGGT 389
                                                                                                                                                                                                                                        USA
                                                                                                                                                                                                                                                         ZIP: 94596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-129-930B-12
                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Вp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               óλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŏ
```

```
1003 CTGAAATTAGAAACAAAAGCCAATAATGATGAACATATTATGATGAGTCTGTGAAAGGGA 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       112 GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCTGTGTAGCCTCTGGATTTACTT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     172 TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAAGGGGCTTGAGTGGGTTG 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      232 CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23 TCTTCATAGTTTTTCTCTTTAAAAGGTGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAG 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4; Length 403;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      64.9%; Score 269.4; DB 4; Length 85.3%; Pred. No. 6.2e-72; Live 0; Mismatches 51; Indels
                                                                                                                                                                                   Broad
and Kit and
                                                                APPLICANT: do Couto Dr., Fernando J.R.
APPLICANT: Ceriani Dr., Roberto L.
APPLICANT: Peterson Dr., Jerry A.
APPLICANT: Peterson Dr., Jerry A.
APPLICANT: Padlan Dr., Eduardo A.
TITLE OF INVENTION: Analogue Peptides With Broad
TITLE OF INVENTION: Diagnostic Vaccination and
TITLE OF INVENTION: Therapeutic Methods
NUMBER OF SEQUENCES: 96
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PERGRAPPLICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/129,930
FILING DATE: September 30, 1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/97,696
FILING DATE: NO. 6315997ember 16, 1992
ATTORNEY/AGENT INFORMATION:
NAME: Viviana Amzel Ph.D.
REGISTRATION NUMBER: 30,930
REFERENCE/DOCKET NUMBER: P6639938
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                       E: Pretty, Schroeder & Poplawski
444 South Flower St., 19th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/976,288A
FILING DATE: No. 6315997ember 21, 1997
CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IBM PC compatible
SYSTEM: PC-DOS/MS-DOS 5.0
Sequence 12, Application US/08976288A Patent No. 6315997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-976-288A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEX: n.a. INFORMATION FOR SEQ ID NO: 12:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: (213) 622-7700
TELEFAX: (213) 489-4210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        : 403 base pairs
nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 85.3
Matches 313; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                         CITY: Los Angeles
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM:
```

ï

Gaps

```
87 GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                             147 TCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              207 CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAAATCTGATAATTATGCAACA 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 267 CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    327 CTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGAT 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 GTCTACCTGCAAATGAACAACTTAAGAGCTGAAGACACTGGCATTTATTACTGTACCCGT 300
                                                                                                                                                                                                                                                                                                                                                Length 360;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INCORMATION:
APPLICANT: RING, DAVID B.
TITLE OF INVENTION: ANTIGEN-BINDING SITES OF ANTIBODY
TITLE OF INVENTION: ANTIGEN-BINDING SITES OF ANTIBODY
TITLE OF INVENTION: ANTIGEN-BINDING SPECIFIC FOR CANCER ANTIGENS
NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                         22; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: CHIRON CORPORATION
STREET: INTELLECTUAL PROPERTY - R440, PO BOX 8097
CITY: EMERYVILLE
                                                                                                                                                                                          64.5%; Score 267.8; DB 3; 92.7%; Pred. No. 1.8e-71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/483,749A FILING DATE: 07-JUN-1995 CLASSIFICATION: 536
                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0508.008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1, Application US/08483749A
Patent No. 6054561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INPORMATION:
NAME: SAVEREIDE, PAUL B.
REGIESTRATION NUMBER: 36,914
REFERENCE/DOCKET NUMBER: 0508
TELECOMMUNICATION INFORMATION:
TELEPHONE: (510) 601-2585
                                              Sednence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (510) 655-3542
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                      Best Local Similarity 92.73
Matches 281; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 366 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM: MEDIUM TYPE: Floppy of
                                     NAME/KEY: Coding S
LOCATION: 1...360
CTHER INFORMATION:
US-08-767-128-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTC 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301 TAC 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-483-749A-1
                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 7
                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ΩD
                                                                                                                                                                                                                                                                                                                                                                                                                                 δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                     263 GGTTCACCATCTCAAGAGATGATTCCAAAAGTAGATGTACCTGCAAATGATAAGCTTAA 322
                                                                                                                                                     292 AGTICACCATCTCAAGAGATGATTCCAAAAGTCGTCTTTACCTGCAAATGAACAGCTTAA 351
                                                                                                                   352 GAGCTGAAGACAGTGGAGTTTATTACTGTAC---AGATTTCATAGACTGGGGCCAAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: WYLE, DWANE E.
APPLICANT: LOPEZ, OSVALDO
APPLICANT: LOPEZ, OSVALDO
APPLICANT: GOBEL, PETER JOSEPH
TITLE OF INVENTION: LEAD BINDING POLYPEPTIDES AND
TITLE OF INVENTION: NUCLEOTIDES CODING THEREFORE
NUMBER OF SEQUENCES: 46
CORRESPONDENCE ADDRESS:
ADDRESSEE: Merchant, Gould, Smith, Edell, Welter & Schmidt
STREET: 3100 No. 6111079west Center, 90 South Seventh St
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 424
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER:
PILING DATE: 04-DEC-1996
CLASSIFICATION A44
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US96/09258
FILING DATE: 05-JUN-1996
PROR APPLICATION DATA:
FILING DATE: 10-OCT-1995
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
FILING DATE: 10-OCT-1995
PRIOR APPLICATION DATA:
APPLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Carter, Charles G.
REGISTRATION NUMBER: 35,093
REFERNCE/DOCKET NUMBER: 8648.49USF1
TELECOMMUNICATION INFORMATION:
TELEPHONE: 612/371-5278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: FRACESO VETSION 1.5
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/767,128
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 27, Application US/08767128
Patent No. 6111079
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRI.

ZIP: 55402
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
MITTER: DISKETTE
MEDIUM TYPE: DISKETTE
MITTER: DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
MOLECULE TYPE: Genomic DNA
HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 05-JUN-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 360 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: 612/332-9081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nucleic acid
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minneapolis
                                                                                                                                                                                                                                            CACTAGT 415
                                                                                                                                                                                                                                                                                                 383 CTCTGGT 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FRAGMENT TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: MN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-767-128-27
                                                                                                                                                                                                                                         409
                                                                                                                                                                                                                                                                                                                                                                                        RESULT 6
                                                                                                                   ò
                                                                                                                                                                           QQ
                                                                                                                                                                                                                                         ŏ
                                                                                                                                                                                                                                                                                           Q
   å
                                                           a
```

```
Sequence 65, Application US/07977696C
Patent No. 5792852
GENERAL INFORMATION:
APPLICANT: Ceriani Dr., Roberto L.
APPLICANT: Peterson Dr., Jerry A.
APPLICANT: Peterson Dr., Jerry A.
TITLE OF INVENTION: Analogue Peptides with Specificity
TITLE OF INVENTION: for Carcinomas and Kit and Diagnostic Vaccination
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            267 CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  327 CTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGAT 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     646 CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                87 GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                    327 CTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                207 CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              147 TCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT
                                                                                                                                                                                                                                                                                      APPLICANT: Barbat, Doron
APPLICANT: Barbat, Doron
APPLICANT: Rader, Christoph
APPLICANT: Rader, Christoph
APPLICANT: List, Benjamin
APPLICANT: List, Benjamin
TITLE OF INVENTION: PRODRUG ACTIVATION USING CATALYTIC ANTIBODIES
FILE REFERENCE: PLF0011S
CURRENT APPLICATION NUMBER: US/09/318,661
CURRENT FILING DATE: 1999-05-25
NUMBER OF SEQ ID NOS: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 4; Length 899;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 263.6; DB 4;
Pred. No. 4.5e-70;
0; Mismatches 29;
                                                                                                                                                                                                                    US-09-318-661-5/c
; Sequence 5, Application US/09318661
; Patent No. 6268488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63.5%;
90.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 63.5
Best Local Similarity 90.6
Matches 281; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Mus musculus US-09-318-661-5
                                                                                                           387 TICATAGACT 396
                                                                                                                                             766 TATTTTACT 775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       387 TTCATAGACT 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           134 TATTTTACT 125
                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-07-977-696C-65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 5
LENGTH: 899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                δλ
                                                                     g
                                                                                                           δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Óγ
                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ó:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 TCCTGTGTTGCCTCTGGATTCACTTTCAGTAACTACTGGATGAACTGGGTCCGCCCAGTCT 120
                                                                                                                                                                                                                                                                                                                                CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                147 TCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGAGAAGGGGCTTGAGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 326
                                                                                                                                                                                                                                                                                                             CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         87 GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            87 GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                       1 GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAAGATCCATGAAACTC
                                                                                                                                                                                                                                      TCCTGTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           327 CTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTAC 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 GTCTACCTGCAACTGAACATTAAGAGCTGAAGACACTGGCATTTATTACTGTGC 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Shabar III, Carlos F.
APPLICANT: Shabar III, Carlos F.
APPLICANT: Shabar Doron
APPLICANT: Rader, Doron
APPLICANT: List, Benjamin
APPLICANT: List, Benjamin
APPLICANT: Lerner, Richard A.
TITLE OF INVENTION: PRODRUG ACTIVATION USING CATALYTIC ANTIBODIES
FILE REFERENCE: PLF0011S
CURRENT APPLICATION NUMBER: US/09/318,661
CURRENT FILING DATE: 1999-05-25
NUMBER OF SED ID NOS: -6
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                          0;
                                                                                        Length 366;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 899;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 263.6; DB 4;
Pred. No. 4.5e-70;
0; Mismatches 29;
                                                                                        DB 3;
                                                                                                                        18;
                                                                                      Score 267.2; DB 3
Pred. No. 2.7e-71;
0; Mismatches 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1, Application US/09318661 Patent No. 6268488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                63.5%;
90.6%;
                                                                                    Query Match 64.4%;
Best Local Similarity 93.9%;
Matches 278; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 281; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; NAME/KEY: CDS
; LOCATION: (1)..(897)
US-09-318-661-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
                 NAME/KEY:
                                ; LOCATION:
US-08-483-749A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                    267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  267
                                                                                                                                                                                                                                      147
                                                                                                                                                                                                                                                                                                             207
                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                               δy
                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                           δλ
                                                                                                                                                                                                                                                                                                                                           QQ
                                                                                                                                                                                                                                                                                                                                                                                                                  QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                δy
```

```
83 GAGGCTTGGTGCAACCTGGAGGATCCATGAGACTCTCTTGTGCTTCTGGATTCACTT 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          263 GGTTCACCATCTCAAGAGATGATTCCAAAAGTACTGTGTACCTGCAACTAGAATAGCTTAA 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          52 TTTTTTTTTTATTGTTCTTTTAAAAGGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAG 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   112 GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCTGTGTAGCCTCTGGATTTACTT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAAGGGGCTTGAGTGGGTTG 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CIGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         292 AGTICACCATCTCAAGAGATGATTCCAAAAGTCGTCTTACCTGCAAATGAACAGCTTAA 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 403;
                                            APPLICANT: Peterson Dr., Jerry A.
APPLICANT: Padlan Dr., Eduardo A.
TITLE OF INVENTION: Analogue Peptides With Broad
TITLE OF INVENTION: Carcinoma Specificity, and Kit and
TITLE OF INVENTION: Diagnostic Vaccination and
TITLE OF INVENTION: Therapeutic Methods
CORRESPONDENCES: 96
                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS 5.0
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                            ADDRESSEE: V. AMZEL & ASSOC.
STREET: 2055 No. 5804187th Broadway, Suite 201
CITY: Walnut Creek
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   63.4%; Score 263; DB 1; ilarity 84.2%; Pred. No. 5.2e-70; Conservative 0; Mismatches 55
       do Couto Dr., Fernando J.R.
Ceriani Dr., Roberto L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: CRFCC-008A TELECOMMUNICATION INFORMATION: TELEPHONE: (510) 521-1333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/129,930B
FILING DATE: September 30, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: September 30, 1
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Anneal Ph.D., Viviana
REGISTRATION NUMBER: 30,930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-129-930B-65
                                                                                                                                                                                                                                                                                                                                                                                         Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (510) 521-3541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 403 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEX: n.a.
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 309; Conservat
                                                                                                                                                                                                                                                                                                California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACTAGT 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCTGGT 389
                                                                                                                                                                                                                                                                                                                         USA
                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                            94596
                                                                                                                                                                                                                                                                                                                     COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                83 GAGGCTTGGTGCAACCTGGAGGATCCATGAGACTCTCTTGTGCTGCTTCTGGATTCACTT 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          323 GAGCTGAAGACACTGCCCTTTATTACTGTACTGGGGAGTTTGCTAACTGGGGCCAGGGGA 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      143 TTAGTGATGCCTGGATGGACTGGGTCCGCCAGTCTCCAGGGAAGGGGCTTGAGTGGGTTG 202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTTCACCATCTCAAGAGATGATTCCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAA 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  52 TTTTTTTTATTGTTCTTTTAAAAGGGGTCCAGAGTGAAGTGAAGCTTGAGGAGTCTGGAG 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        112 GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             172 TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCCCCAGAGAAGGGGCTTGAGTGGGTTG 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      263 GGTTCACCATCTCAAGAATGATTCCAAAAGTACTGTGTACCTGCAAATGAATAGCTTAA 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGCTGAAGACAGTGGAGTTTATTACTGTAC---AGATTTCATAGACTGGGGCCAAGGGA 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 403;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          55; Indels
                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/07/977,696C

FILING DATE: 11-16-92

CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:

NAME: AMZEI Ph.D., Viviana

REGISTRATION NUMBER: 30,930

REFERENCE/DOCKET NUMBER: P66.38227

TELEPROMUNICATION INFORMATION:

TELEPROMUNICATION INFORMATION:

TELEPROMUNICATION INFORMATION:

TELEPROMUNICATION INFORMATION:

TELEPROMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 63.4%; Score 263; DB 1; Best Local Similarity 84.2%; Pred. No. 5.2e-70; Matches 309; Conservative 0; Mismatches 55.
                                                                 ADDRESSEE: PRETTY, SCHROEDER & POPLAWSKI STREET: 444 South Flower Street, Suite 2000 CITY: Los Angeles STATE: California COUNTRY: USA
TITLE OF INVENTION: and Therapeutic Methods.
NUMBER OF SEQUENCES: 81
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS 5.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 11
US-08-129-30B-65
Sequence 65, Application US/08129930B
Patent No: 5804187
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; SEQUENCE CHARACTERISTICS:
; LENGTH: 403 base pairs
; TYPE: nuclelc acid
; STRANDEDNESS: single
; TOPPLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-07-977-696C-65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEX: n.a. INFORMATION FOR SEQ ID NO:
                                                                                                                                                                               ZIP: 90071
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          409 CACTAGT 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCTGGT 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

ij

```
87 GAAGTGAAGCTTGAGGAGTCTGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 TCCTGTGTTGCCTCTGGATTCACTTTCAGTAACTATTGGATGAATTGGGTCCGCCAGTCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             147 TCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 266
                                                292 AGTTCACCATCTCAAGAGATGATTCCAAAAGTCGTCTCTACCTGCAAATGAACAGCTTAA 351
                                                                                                                                         352 GAGCTGAAGACAGTGGAGTTTATTACTGTAC---AGATTTCATAGACTGGGGCCAAGGGA 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GAGGTGAAACTTGAGGAGTCTGGAGGCTTGGTGCAACCTGGAGGATCTATGAAACTC 60
                                                                        203 CTGAAATTAGAAACAAAGCCAATAATCATGCAACATATTATGATGAGTCTGTGAAAGGGA
                                                                                                                                                                                                                                                                                                                                                                                 Sequence 9, Application US/08483749A
Patent No. 6054561
GENERAL INFORMATION:
APPLICANT: RING, DAVID B.
TITLE OF INVENTION: MOLECULES SPECIFIC FOR CANCER ANTIGENS
NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
ADDRESSES: CHIRON CORPORATION
STREET: INTELECTUAL PROPERTY - R440, PO BOX 8097
CITT: EMERYVILLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 342;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               40; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
FILLING DATE: US/08/483,749A
FILLING DATE: 07 JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               62.4%; Score 259; DB 3;
87.6%; Pred. No. 7.8e-69;
tive 0; Mismatches 40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0508.008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 36,914
REFERENCE/POCKET NUMBER: 0508
TELECOMMUNICATION INFORMATION:
TELECHONE: (510) 601-2885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (510) 655-3542
INFORMATION FOR SEQ ID NO: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         342 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 283; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: CA
COUNTRY: USA
ZIP: 94662-8097
                                                                                                                                                                                                                                  409 CACTAGT 415
                                                                                                                                                                                                                                                                              383 CTCTGGT 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-483-749A-9
                                                                                                                                                                                                                                                                                                                                                                       US-08-483-749A-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                 RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δŽ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                         q
                                                                                                                                                                             Ωp
                                           Q
                                                                                                                                       QΥ
                                                                                                                                                                                                                                Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   112 GAGGCTTGGTGCAACCTGGAGGATCCATGAAACTCTCCTGTGTAGCCTCTGGATTTACTT 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              83 GAGGCTTGGTGCAACCTGGAGGATCCATGAGACTCTTGTGTGCTGCTTCTGGATTCACTT 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    172 TCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCTCCAGAGAGGGGCTTGAGTGGGTTG 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGAAATTAGATTGAAATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGA 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23 TCTTCATAGTTTTCTCTTAAAAGGTGTCCAGAGTGAAGTGAAGTGCAGCTTGTGGGAGTCTGGGG 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  63.4%; Score 263; DB 4; Length 403; 84.2%; Pred. No. 5.2e-70; Live 0; Mismatches 55; Indels
                                                                                                                                                                                                   APPLICANT: Peterson Dr., Jerry A.
APPLICANT: Peterson Dr., Jerry A.
APPLICANT: Padlan Dr., Eduardo A.
TITLE OF INVENTION: Analogue Peptides With Broad
TITLE OF INVENTION: Carcinoma Specificity, and Kit and
TITLE OF INVENTION: Diagnostic Vaccination and
TITLE OF INVENTION: Therapeutic Methods
CORRESPONDENCES: 96
CORRESPONDENCES: 96
ADDRESSEE: Pretty, Schroeder & Poplawski
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS 5.0
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/976,288A
FILING DATE: NO. 6315997ember 21, 1997
CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                             Eretty, Schroeder & Poplawski
444 South Flower St., 19th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/129,930

FILING DATE: September 30, 1993

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 07/977,696

FILING DATE: NO. 631597ember 16, 1992

ATTORNEY/AGENT INFORMATION:
                                                                                                                                  GENERAL INFORMATION:
APPLICANT: do Couto Dr., Fernando J.R.
APPLICANT: Ceriani Dr., Roberto L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: P6639938
TELECOMMUNICATION INFORMATION:
TELEPHONE: (213) 622-7700
TELEFAX: (213) 489-4210
                                                                                         Sequence 65, Application US/08976288A Patent No. 6315997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30,930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Viviana Amzel Ph.D. REGISTRATION NUMBER: 30,9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGIH: 403 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best_Local Similarity 84.2
Matches 309; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Los Angeles
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-976-288A-65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                     STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

; 0

ï

```
87 GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                                                                                                      61 TCCTGTGTTGCCTCTGGATTCACTTTCAGTAACTACTGGATGAACTGGGTCCGCCAGTCT 120
                                                                                                                                                                                                                                                                                                                                                                             121 CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAGTTAGATTGAAATC---TAATTATGCAACA 177
                                                                                                                                                                                                                                                                                                                                                                                                                                  267 CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 326
                                                                                                                                                                                                                                                                                 147 TCCTGTGTAGCCTCTGGATTTACTTTCAGTGGCTACTGGATGTCTTGGGTCCGCCAGTCT 206
                                                                                                                                                                                                                                                                                                                                                           CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 266
                                                                                                                                                                                                                          1 GAAGTTAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                        э;
Э
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Le, Junming
APPLICANT: Le, Junming
APPLICANT: Vilcek, Jan
APPLICANT: Daddona, Peter E.
APPLICANT: Ghrayb, John
APPLICANT: Siegel, Scott A.
TITLE OF INVENTION: ANTI-TNF ANTIBODIES
NUMBER OF SEQUENCES: 19
CORRESPONDENCE ADDRESS:
                                                                                                                                   Length 357;
                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C.
                                                                                                                                 DB 3;
                                                                                                                               Score 256.6; DB 3;
Pred. No. 4.2e-68;
0; Mismatches 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 02-PEB-1993
PRIOR APPLICATION NUMBER: US 08/013,413
APPLICATION NUMBER: US 08/010 AAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 04-FEB-1994
CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/192,093
FILLIGATION OF 04-FEB-1994
APPLICATION NUMBER: US 08/013,413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Sequence 4, Application US/08192102; Patent No. 5656272; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IBM PC compatible
                                   ; NAME/KEY: Coding Sequence; LOCATION: 1...357
COTHER INFORMATION:
US-08-767-128-25
                                                                                                                               61.8%;
92.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: Two Militia Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                           Query Match
Best Local Similarity 92.77
Matches 281; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Lexington
STATE: Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM:
SOFTWARE: Patenti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        USA
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       298 TAC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  387 TTC 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 15
US-08-192-102-4
                                                                                                                                                                                                                                                                                                                                                         207 (
                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                 CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 326
                                                                                      CTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGAGTTTATTACTGTACAGAT 386
                                                                                                          ADDRESSE: Merchant, Gould, Smith, Edell, Welter & Schmidt
STREET: 3100 No. 6111079West Center, 90 South Seventh St
CITY: Minneapolis
STATE: MN
                                                                                                                                                                                                                                                                                         Sequence 25, Application US/08767128
Patent No. 6111079
GENERAL INFORMATION:
APPLICANT: WYLE, DWANE E.
APPLICANT: WINRAY, PETER JOSEPH
APPLICANT: GOEBEL, PETER JOSEPH
TITLE OF INVENTION: LEAD BINDING POLYPEPTIDES AND TITLE OF SEQUENCES: 46 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 04-DEC-1996
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US96/09258
FILING DATE: 05-JUN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8648.49USF1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FRASTEQ Version 1.5
CURRENT APPLICATION DATA:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 08/462,798
FILING DATE: 05-JUN-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/541,373
FILING DATE: 10-OCT-1995
PRIOR APPLICATION DATA:
                                                                                                                                                               387 TTCATAGACTGGGGCCAAGGGAC 409
                                                                                                                                                                                                  301 TGGGACTATTGGGGCCGAGGCAC 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Carter, Charles G. REGISTRATION NUMBER: 35,093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 86
TELECOMMUNICATION INFORMATION:
TELEPHONE: 612/311-5278
TELEFAX: 612/332-9081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: Genomic DNA HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 357 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ANTI-SENSE: N
FRAGMENT TYPE:
                                                                                                                                                                                                                                                                             US-08-767-128-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
             267
                                                                                      327
                                                                                                                                                                                                                                                           RESULT 14
             ò
                                               g
                                                                                                                     g
                                                                                                                                                             ò
                                                                                                                                                                                                  g
                                                                                      ò
```

```
ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   267 CATTATGCGGAGTCTGTGAAAGGGAAGTTCACCATCTCAAGAGATGATTCCAAAAGTCGT 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           207 CCAGAGAAGGGGCTTGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               87 GAAGTGAAGCTTGAGGAGTCTGGAGGAGGCTTGGTGCAACCTGGAGGATCCATGAAACTC 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 GTCTACCTGCAAATGACCGACTTAAGAACTGAAGACACTGGCGTTTATTACTGTTC 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 327 CTCTACCTGCAAATGAACAGCTTAAGAGCTGAAGACAGTGGGAGTTTATTACTGTAC 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 91.6%; Pred. No. 6.3e-68;
Matches 271; Conservative 0; Mismatches 25; Indels
PRIOR APPLICATION DATE:
APPLICATION NUMBER: US 07/943,852
FILING DATE: 11-SEP-1992
PRIOR APPLICATION NUMBER: US 07/853,606
FILING DATE: 18-MAR-1992
PRIOR APPLICATION DATE: 18-MAR-1992
PRIOR APPLICATION NUMBER: US 07/670,827
FILING DATE: 18-MAR-1991
ATTORNEY AGENT INFORMATION:
NAME: Brock, David E.
RECHENCHOOKET NUMBER: 22,592
RECESTRATION NUMBER: 22,592
RECECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION SEQ 1D NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 357 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear MOLECULE TYPE: CDNA FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                               ; NAME/KEY: CDS
; LOCATION: 1..3
US-08-192-102-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
```

Search completed: April 26, 2003, 07:28:34 Job time : 20.1893 secs

34.							
					·		
		·					
				·			
			·				
	·						<b>y</b>
							•

.

'n

April 26, 2003, 04:53:31; Search time 872.104 Seconds (without alignments) 14583.043 Million cell updates/sec 1 aagetttacagttactcage......agttggaaataaaacgtacg 437 4109280 Total number of hits satisfying chosen parameters: 2054640 segs, 14551402878 residues Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries OM nucleic - nucleic search, using sw model IDENTITY\_NUC Gapoxt 1.0 Minimum DB seq length: 0 Maximum DB seq length: 2000000000 US-09-674-716B-2 437 Title: Perfect score: Sequence: Scoring table: Searched: Run on:

GenEmbl:\* Database :

em\_htg\_hum:\*
em\_htg\_inv:\*
em\_htg\_other:\*
em\_htg\_mus:\* em\_htg\_pln:\*
em\_htg\_rod:\*
em\_htg\_mam:\*
em\_htg\_wrt:\* gb\_ba:\* gb\_htg:\* gb\_om:\* gb\_ow:\* gb\_ro:\* gb\_sts:\* em\_fun:\* em\_hum:\* em\_sts:\* gb\_pat:\* gb\_ph:\* gb\_pl:\* gb\_sy:\* gb\_un:\* gb\_vi:\* em\_ba:\* em\_in:\* em\_mu:\* em\_om:\* em\_or:\* еш\_un:\* em\_pl:\* em\_ro:\* em\_pat: gb\_pr:\* em\_ov:

Pred. No. is the number of results predicted by chance to have a

em\_htgo\_mus:\*
em\_htgo\_other:\*

em\_htgo\_hum:\*

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Description	AX010601 Sequence AX010604 Sequence M19910 Mouse Ig re M19909 Mouse Ig re J00553 Mouse ig ka U29425 Mus musculu AR072863 Sequence AR166313 Sequence AR166313 Sequence AR166315 Sequence AR166315 Sequence AR166315 Sequence AR166315 Sequence AR166315 Sequence AR072865 Sequence AR166315 Sequence AR0729 Mouse immun AJ231264 Mus muscu J00562 Mouse Ig ge AC101099 Mus muscu AC122322 Mus muscu	M80407 Mouse 1g ge AJ277812 Nus muscul A29573 M.musculus 125724 Sequence 15 249934 M.musculus AF045509 Mus muscul M1553 Mouse germl U92070 Mus musculu M1552 Mouse germl M1552 Mouse germl AF04515 Mus musculus AF04515 Mus musculus AF04515 Mus musculus AF04515 Mus musculus AF04516 Mus musculus AR01373 Sequence AF06708 Mus musculus AR01373 Sequence AR01614 Sequence AX010614 Sequence AX010614 Sequence AX010614 Sequence AX010614 Sequence	E35208 Human monoc E35208 Human monoc BC030814 Homo sapi E55207 Human monoc AC098322 Retrus no Z68925 H.sapiens m X72467 H.sapiens m	linear PAT 06-SEP-2000  yethebrata; Euteleostomi; nathi; Muridae; Murinae; Mus. , Ellis, J.H. and Shearin, J. of, and their therapeutic uses
SUMMARIES	AX010601 AX010641 AX010644 MUSICKCNG MUSICKCNF 0 MUSICKAH 0 MUSICKAH 0 MUSICKAH 0 MUSICKAH 0 AR072861 AR166313 AR166313 AR166319 AR166316 0 MMIG28 0 MMIG28 0 MMIG28 0 MMIG28 0 MMIGSHVHZ	10 MUSIGKVAA 10 MUZ7812 6 A29573 6 125724 10 MMSY5PKL 10 MMSY5PKL 10 MUSIGKVNB 10 MUSIGKVNB 10 MUSIGKVNB 10 MUSIGKVNB 10 MUSIGKVNB 10 MF045515 10 MF045515 10 MF045515 10 AF045515 6 AR013733 10 AF046768 6 AR019733 10 AF046768 10 AF046768 2 AX010614 6 AX010614	E35205 E35208 E03208 E35207 E35207 AC098332 HSKPOLC01 HSIGKLV46	tent W09958679. 7413 ; Chordata; Craniata; Ver Rodentia; Sciurognathi; We, S.J., Rapson, N.T., Ell derivatives thereof, an 2 18-NOV-1999;
\$ Query Match Length DB	1000.0 1000.0 85.4 85.4 140.8 140.8 140.8 131.9 140.8 14	67.9 1149 67.1 464 67.1 4664 67.1 4664 65.1 396 65.1 398 65.1 399 65.1 593 63.2 399 63.2 399 63.0 993 63.0 339 63.0 339	720 9 720 9 720 9 55541 8 405	AXO10601 Sequence 2 from Patent AXO10601 AXO10601.1 GI:9997413 house mouse. Mus musculus Metazoa; Ch Mammalia; Eutheria; Ro 1 (Dases I to 437) Bonnefoy, J. Y. Crowe, Antibodies to cd23, de Patent: WO 9958679-A 2
Result No. Score	C 2 4 4 3 7 4 4 3 7 3 7 3 7 3 7 3 7 3 7 3 7		2552 25452 2552 2552 2552 2552 2552 255	X010601 SCUS SCUS SCUS SCUS SCESSION EXSTON EXPORDS OURCE ORGANISM AUTHORS TITLE
Resul			r) 🖸	AXO1 LOCC DOEN ACETY VERK KEYY SOUI OI OI REFI REFI

Gaps 9

ö

```
M19910.1 GI:197027
C-region; immunoglobulin-kappa;
processed gene.
Mouse (BALB/C) mature B cell, cDNA to mRNA, clone ANO6K.
Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
mammalla; Eutheria; Rodentia; Sclurognathi; Muridae; Murinae; Musinae; Rule, G. S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3375235
Draft entry and computer-readable sequence [2] kindly submitted
G.Rule, 20-JUL-1988.
                                                                                                                                                                                                                                                                        181 TCCTGTATAAGGATGGGAAGACATACTTGAATTGGTTTCTGCAGAGACCAGGACAATCTC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCAGTGGGTCAGGCACAGATTTCACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGG 360
                                                                                                                                                                                                                                                                                                                                         1 AAGCTTTACAGTTACTCAGCACACAGGACCTCACCATGAGGTTCTCTGTTCAGTTTCTGG
                                                                                                                                                                                                                                                      61 GGGTGCTTATGTTCTGGATCTCTGGAGTCAGTGGGGATATTGTGATAACCCAGGATGAAC
                                                                                                                                                                                                                                                                                                                       121 TCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCAGCTCCTGATGTATTTGATGTCCACCCGTGCATCAGGAGTCTCAGACCGGGTTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished (1988)
2 (bases 1 to 431)
Leahy,D.J., Rule,G.S., Whittaker,M.M. and McConnell,H.M. Sequences of 12 monoclonal anti-dinitrophenyl spin-label
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MR studies
Natl. Acad. Sci. U.S.A. 85 (11), 3661-3665 (1988)
                                                                                                                      Length 437;
                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mouse Ig rearranged kappa-chain mRNA, clone ANO6K, M19910 103832
                                                                                                                ; Score 437; DB 6; 1; Pred. No. 9.4e-133; 0; Mismatches 0;
Location/Qualifiers
1. 437
/organism="Mus musculus"
/bxref="taxon:10990"
a 114 c 93 g 108
                                                                   108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /strain="BALB/c"
/sub_species="domesticus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                  93 g
                                                                                                                    100.0%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421 TGGAAATAAAACGTACG 437
                                                                                                                                    Best Local Similarity 100.
Matches 437; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17 TGGAAATAAAACGTACG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             88234486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for NMR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Proc.
                                                                                                                      Query Match
                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                   BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 3
MUSIGKCNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                       ^{\circ}
                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                      QΥ
                                                                                                                                                                                                                                                                                                                                                                                     δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δŽ
                                                                                                                                       /note- uni-
/codon_start=1
/protein_id="CAC07527.1"
/protein_id="CAC07527.1"
/Ab_xxef="G1:99974120"
/translation="ALQLLSTO"
TSGESVSISCRSSKSLLYKDGKTYLNWFLQRPGQSPQLLMYLMSTRASGVSDRFSGSG
SGTDFTLEISRVKAEDVGYYYCQQLVEYPFTFGSGTKLEIKRT"
91 c 114 g 122 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. I (bases I to 437).

Bonnefoy, J.Y., Crowe, S.J., Rapson, N.T., Ellis, J.H. and Shearin, J. Antibodies to cd23, derivatives thereof, and their therapeutic uses Beneric JEAN 18-NOV-1999;

BONNEFOY JEAN IVES MARCEL PAUL (FR); CROWE SCOTT JAMES (GB); RAPSON NICHOLAS TIMOTHY (GB); GLAXO GROUP LTD (GB); ELLIS JONATHAN HENRY (GB); SHEARIN JEAN (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PAT 06-SEP-2000
 BONNEFOY JEAN YVES MARCEL PAUL (FR); CROWE SCOTT JAMES (GB); RAPSON NICHOLAS THOTHY (GB); GLAXO GROUP LTD (GB); ELLIS JONATHAN HENRY (GB); SHEARIN JEAN (US)
LOCALION/QUAlifiers
                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                         61 GGGFGCTTATGTTCTGGATCTCTGGAGTCAGTGGGGATATTGTGATAACCCAGGATGAAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 GGGTGCTTATGTTCTGGATCTCTGGAGTCAGTGGGGGATATTGTGATAACCCAGGATGAAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                         1 AAGCTTTACAGTTACTCAGCACACAGGACCTCACCATGAGGTTCTCTGTTCAGTTTCTGG
                                                                                                                                                                                                                                                                                                                                                                                           1 AAGCTTTACAGTTACTCAGCACACAGAGCTCCACCATGAGGTTCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 TCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181 TCCTGTATAAGGATGGGAAGACATACTTGAATTGGTTTCTGCAGAGACCAGGACAATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCAGCTCCTGATGTATTTGATGTCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301 GCAGTGGGTCAGGCACAGATTTCACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361 GTGTGTATTACTGTCAACAACTTGTAGAGTATCCATTCACGTTCGGCTCGGGGACAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                        Length 437;
                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                       100.0%; Score 437; DB 6; 1
100.0%; Pred. No. 9.4e-133;
ative 0; Mismatches 0;
                                                                                                                                    /note="unnamed protein product"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 47 from Patent W09958679.
AX010644
                                                                                  /organism="Mus musculus"
                                                                                                  /db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AX010644.1 GI:9997453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGAAATAAAACGTACG 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421 TGGAAATAAAACGTACG 437
                                                                                                                    <3. .>437
                                                                                                                                                                                                                                                                                                                                          437; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                se mouse.
musculus
                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                      108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              house
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus
                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 437,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
ACCESSION
VERSION
                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 2
AX010644/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
ORGANISM
                                                                                                                                                                                                                                                      BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                      CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
```

g

g

ò

a

ò

a

ò

qq

ò

g ò Db ŝ a

ò

ROD 26-MAR-1994

420

78

antibodies

bγ

 $\sim$ 

```
G.Rule,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        386;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 5
MUSIGKAH
LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              392
                                                                                                                                                                                                               CDS
                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Óλ
                                                                                                                          /product="immunoglobulin kappa-chain"
/protein_id="AAA38885.1"
/db_xref="G1:554111"
/db_xref="G1:554111"
/translation="MRCSLOFLGVLMFWISGVSGDIVITQDELSNPVTSGESVSISCR
STKSLLYROKTVLMPFLQNFGQSPQLLIYLMSTRASGVSDRFSGSGGTDFTLEISR
VKAEDVGVYYCQQLVEFPLTFGAGTKLELKR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ROD 26-MAR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Proc. Natl. Acad. Sci. U.S.A. 85 (11), 3661-3665 (1988)
88234486
3375235
Draft entry and computer-readable sequence [2] kindly submitted by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mammalia; Eutheria; Chordata; Craniata; Vertebrata; Euteleostomi; 1 (bases 1 to 56)
Rule,G.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             processed gene.
Mus musculus (strain BALB/c, sub_species domesticus) cDNA to mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTCCCAATCCTGTCACTTCTGGA 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACA 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCCAGTGGGTCAGGCACAGATTTC 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             204 TACTTGAATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTT 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24 CAGGACCTCACCATGAGGITCTCTGTTCAGTTTCTGGGGGGTGCTTATGTTCTGGATCTCT 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20 CAAGTICTCAGAATGAGGTGCTCTTCAGTTCCTGGGGGTGCTTATGTTCTGGATCTCT 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               M19909.1 GI:197025
C-region; immunoglobulin light chain; immunoglobulin-kappa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 (bases 1 to 458)
Leahy, D.J., Rule, G.S., Whittaker, M.M. and McConnell, H.M.
Sequences of 12 monoclonal anti-dinitrophenyl spin-label
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ó
                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 10; Length 431;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTAGAGTATCCATTCACGTTCGGCGCGCCAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  111111 | 11 | 11111111 | 11111 | 1111 | 1111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mouse Ig rearranged kappa-chain mRNA, clone AN05K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23; Indels
                                                                                                                                                                                                                                                                                                         92. .>431
/product="immunoglobulin kappa-chain"
96 c 113 g 119 t
                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 373.2; DB 10,
Pred. No. 1.1e-111;
0; Mismatches 23;
                     cell"
/db_xref="taxon:10090"
                        /cell_type="mature B 32. .>431
                                                                                                                                                                                                                                                                                                                                                                  113 g
                                                                            /note="precursor"
                                                                                                       /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 85.4%;
Best Local Similarity 94.4%;
Matches 387; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished (1988)
                                                                                                                                                                                                                                                                                      32. .91
92. .>4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for NMR studies
                                                                                                                                                                                                                                                                                                                                                                  103
                                                                                                                                                                                                                                                                                      sig_peptide
mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 4
MUSIGKCNF
LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                 CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gα
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
```

```
/translation="MRCSLOFIGVLMFWISGVSGDIVITQDELSNPVASGESYSISCR
STKSLLYKDGKTYLMWFLQRPGQSPQLLIYLMSTRASGVSDRFSGSGSGTDFTLEISR
VKAEDVGVYYCQQLVEFPLTFGAGTKLELKRADAAP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mouse ig kappa active gene: v-kappa-167 v-j region.
J00553 J00563
J00553 J G1:196735
C-region; J-region; V-region; complementarity determining region; framework region; hypervariable region; immunoglobulin light chain; immunoglobulin-kappa; immunoglobulin-kappa subgroup vk-24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ROD 18-APR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mouse cdna to myeloma m167 mrna; hybridomas hpcg9, hpcg10, hpcg13, hpcg22 & myelomas m511, m167 dna (see comment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus Sukaryotas, Chordata; Craniata; Vertebrata; Euteleostomi; Bukaryotas; Metazoa; Chordata; Sclurognathi; Muridae; Murinae; Musmallia; Eutheria; Rodentia; Sclurognathi; Muridae; Murinae; Musos 158 to 170; 537 to 617)
Joho, R., Weissman, I.L., Early, P., Cole, J. and Hood, L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TACTTGAATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTGATG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCACCCGTGCATCAGGGGTCTCAGACCGGTTTAGTGGCAGTGGGGTCAGGCACAGATTTC 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            84 GGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGA 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   144 GAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACA 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    272 TCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGAACAGATTTC 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   324 ACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGGGGTGTATTACTGTCAACAACTT 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    132 ACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGGGGTGTATTACTGTCAACATT 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11 | 1111 | 1111 | 1111 | 1111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24 CAGGACCTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGGGCTTTATGTTCTGGATCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 458;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             384 GTAGAGTATCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /product="immunoglobulin kappa-chain"
/protein_id="AAA3884.1"
/db_xref="GI:554110"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /product="immunoglobulin kappa-chain"
105 c 119 g 126 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 371.6; DB 10;
Pred. No. 3.6e-111;
0; Mismatches 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA
                                                                                                                                                                         /strain="BALB/c"
/sub_species="domesticus"
/db_xref="taxon:10090"
/cell_type="mature B cell"
44. .>458
                                                                                                                                           /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1400 bp
                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                             /note="precursor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                85.0%;
94.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              44. .103
104. .>458
20-JUL-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                    .458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             processed gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MUSIGKAH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sig_peptide
mat_peptide
```

4

```
/note="g in hybridomas hpcg9, hpcg10, hpcg22 & comment)
511, m167; t in hybridoma hpcg13(see"
859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               139 CTGGAGAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGA 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 333.4; DB 10; Length 1400;
Pred. No. 1.5e-98;
0; Mismatches 16; Indels 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'note="c in germline; t in myeloma m167"
1279. 1283
'note="tgaag in germline; tg in myeloma m511"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="c in germline; t in hybridoma hpcg10" 399 a 250 c 350 g' 401 t unreported, chromosome 6.
                                                                                    /note="a in germline; g in hybridoma hpcg13"
                                                                                                                            /note="c in germline; a in hybridoma hpcg13"
                                                                                                                                                                                                                                                                                                                                                                    a in hybridoma hpcg13"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="t in germline; c in hybridoma hpcg10"
885. .>1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'note="a in germline; t in hybridoma hpcg13"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       note="t in germline; a in hybridoma hpcg10" (96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  c in hybridoma hpcg13"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g in hybridoma hpcg10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g in hybridoma hpcg13"
                                                                                                                                                                                                                                                                                                                             c in hybridoma hpcg13"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'note="t in germline; c in hybridoma hpcg10"
                                                                                                                                                                                                                                                                                                                                                                                                             g in myeloma m511"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'note="a in germline; c in myeloma m167"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'note="g in germline; a in myeloma m167"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    t in myeloma m167"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g in myeloma m167"
                                                                                                                                                                     'note="t in germline; a in myeloma m511"
                                                                                                                                                                                                                   t in myeloma m511"
                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="a in germline; c in myeloma m167"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'note-"a in germline; c in myeloma m167"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 t in myeloma m167"
  'note="a in germline; g in myeloma m167"
                                        g in myeloma m167"
                                                                                                                                                                                                                              537. .>884
/note="1g V-K167 precursor"
/number=2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'note="v-k167 intron j-c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                               /note="t in germline;
708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="a in germline;
1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="c in germline;
1260
                                                                                                                                                                                                                   'note="c in germline;
                                                                                                                                                                                                                                                                                                                             'note="t in germline;
                                                                                                                                                                                                                                                                                                                                                                    note="g in germline;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note="c in germline;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note="t in germline;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="a in germline;
1251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'note="t in germline;
                                        'note="a in germline;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 76.3%;
Best Local Similarity 95.5%;
Matches 343; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .847
                                                                 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_recomb
                      rariation
                                                                 variation
                                                                                                             variation
                                                                                                                                                     variation
                                                                                                                                                                                                 variation
                                                                                                                                                                                                                                                                                                         variation
                                                                                                                                                                                                                                                                                                                                                  variation
                                                                                                                                                                                                                                                                                                                                                                                           variation
                                                                                                                                                                                                                                                                                                                                                                                                                                      variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rariation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNT
                                                                                                                                                                                                                                            exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BASE CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                       3 (bases 1 to 1400)
Gearhart, P.J. and Bogenhagen, D.F.
Clusters of point mutations are found exclusively around rearranged antibody variable genes
Proc. Natl. Acad. Sci. U.S.A. 80 (11), 3439-3443 (1983)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /protein_id="AaA38770.1"
//protein_id="AaA38770.1"
//translation="WRCSLOFUGVLMFWISGVSGDIVITQDELSNPVTSGESVSISCR
SSKSLLYKDGKTYLNWFLQRPGQSPQLLIYLMSTRASGVSDRFSGSGSGTDFTLEISR
VARDVGVYVSCQQLVRZPPLFFGAGTKLELK"
join(123. .121,537. .547)
note="Ig" v-K167 signal pept"
                                                                                                                                                                                                                                                                                                                                                                                                        the v-k167 gene codes for a v region which binds phosphocholine.

all rearrangements of the v-k167 gene reported here are productive, and in all cases except hybridoma hepcals the codon at the site of recombination is cog in hycgis the codon is cct. the difference could be due to the variability of the v-j recombination site, or it could be an additional somatic mutation. [3] sequenced portions of the j-c intron and the c-kappa gene for all of its hybridomas and myelomas, and found no somatic mutation in these regions. [3] proposes a mechanism for the generation of clustered somatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mutation in the v-j region.

for the germline sequences of the v-k167 v and j regions see for the germline sequences of the v-k167 v and j regions see rearranged kappa genes; see loci beginning musigkvb2>, cmusigkvb2>, cother rearranged kappa genes; see loci beginning cmusigkv> for germline kappa v regions and see loci beginning cmusigky> for the germline determining regions. In the sites table cdr-complementarity
Complete source information:

Complete source information:

mouse cdna to myeoloma m167 mrna [1],[2]; hybridomas hpcg9, hpcg10, hpcg13, hpcg22 & myelomas m511, m167 dna [3].

Location/Qualifiers
                                                                                                      2 (bases 159 to 170; 537 to 847)
Gershenfeld,H.K., Tsukamoto,A., Weissman,I.L. and Joho,R.
Somatic diversification is required to generate the V kappa genes
M. MOPC 511 and MOPC 167 myeloma proteins
Proc. Natl. Acad. Sci. U.S.A. 78 (12), 7674-7678 (1981)
Organization of kappa light chain genes in germ-line and somatic
                                        Proc. Natl. Acad. Sci. U.S.A. 77 (2), 1106-1110 (1980)
80145717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'note="t in germline; g in hybridoma hpcg13"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hpcg13"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'note="t in germline; c in hybridoma hpcg13"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="a in germline; g in myeloma m167"
120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 748. .>883
product="lg V-K167 mature v-j region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'note="c in germline; g in hybridoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in germline; t in hybridoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        c in myeloma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="Ig V-K167 precursor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Mus musculus"
/db_xref="taxon:10090"
join(123. .171,537. .884)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72. .536
'note="-k167 intron a"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        germline;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /codon_start=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="t in
417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               number-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /partial
                                                                                    244580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                               AUTHORS
TITLE
                                                                                                                                                                                                                MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                    MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                  AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      exon
                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                               MEDLINE
                                                                                                        REFERENCE
                                                                                                                                                                                            JOURNAL
                                           JOURNAL
                                                                                                                                                                                                                                                              REFERENCE
                                                                                      PUBMEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
  TITLE
```

S

ö

Gaps

ö

Length 339,

9

```
181 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGAACAGATTTCACCCTGGAAATC 240
                                                                                                                                       156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215
                                                                                                                                                                                                                                                                                                                                              156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215
                                                                             96 GATATIGIGATAACCCAGGAIGAACTCTCCAAICCIGICACIICIGGAGAAICAGIIIICC 155
                                                                                                                                                                                                                                                                  TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96 GATATIGIGATAACCCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGAACAGATTTCACCCTGGAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTGCA
                                                                                                                                                                                                                                                                                                                             AGTAGAGTGAAGGCTGAGGATGTGGGTTATTACTGTCAACAACTTGTAGAGTATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTCTGCAGAGCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCGTGCA
                Score 326.8; DB 10; Length
Pred. No. 2.1e-96;
0; Mismatches 7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 317.2; DB 6;
Pred. No. 3.1e-93;
                                                                                                                                                                                                                                                                                                                                                                                          396 ITCACGITCGGCTCGGGGACAAGTIGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                          DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AR072863 339 bp
Seguence 88 from patent US 5948658.
AR072863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Landry, D.W.
Anti-cocaine catalytic antibody
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent: US 5948658-A 88 07-SI
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="unknown"
72 c 88 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AR072863.1 GI:9999626
                 74.8%;
97.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     72.6%;
96.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (bases 1 to 339)
                                 Best Local Similarity 97.9
Matches 331; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 96.2
Matches 325; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unknown
                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                              336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
                                                                                                                                                                                                                                                                 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 7
AR072863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCUS
                                                                                                         qq
                                                                                                                                                                      qq
                                                                                                                                                                                                                                OD
                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QQ
                                                                                                                                         δ
                                                                                                                                                                                                     Óλ
                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                             δλ
                                                                                                                                                                                                                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Guo,W.X., Burger,A.M., Fischer,R.T., Sieckmann,D.G., Longo,D.L. and
Kenny,J.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /codon_start=1
/product="anti-PC Ig kappa chain"
/protein_id="AACO035.1"
/db xref="GI:2745914"
/translation="DIVITQDELSNPVTSGDSVSISSRSSKSLLYKDGKTYLNWFLQR
                                                                                                                                                                                                                                                                                                                                             ROD 03-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 (bases 1 to 339)
Guo,W.X., Burger,A., Fischer,R.T., Sieckman,D.G., Longo,D.L. and
Kenny,J.J.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Mus musculus"
/strain="c.CBA/N"
/db_xref="taxon:10000"
/cell_line="hybridoma 31-34-2"
/note="hybridoma from spleen fused with SP2/0 myeloma"
                                                           339 bp mRNA linear ROD 03-FEB Mus musculus anti-PC rearranged Ig kappa chain V-J region mRNA, hybridoma 31-34-2, partial cds.
                                                                                                                      259 TGATGTCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCCAGTGGGTCAGGCCACAG 318
                                                                                                                                                                 ATTICACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGGGGTGTGTATTACTGTCAAC 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence changes at the V-D junction of the VH1 heavy chain of anti-phosphocholine antibodies alter binding to and protection against Streptococcus pneumoniae against Streptococcus pneumoniae
                                                                                                                                                                                                                               AACTTGTAGAGTATCCATTCACGTTCGGCGTCGGGGACAAAGTTGGAAATAAAACGTACG 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ₽
AGACATACTTGAATTGGTTTCTGCAGAGACCAGGACAATCTCCTCCAGCTCCTGATGTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission
Submitted (05-JAN-1998) FCRDC, NCI, P.O. Box B, Frederick,
21702-1201, USA
                                                                                                                                                                                                                                             Submitted (19-JUN-1995) FCRDC, NCI, P.O. Box B, Frederick,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nucleotide and protein sequence update by submitter On Jan 5, 1998 this sequence version replaced gi:903959 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21702-1201, USA
3 (bases 1 to 339)
Guo, W. X., Burger, A., Fischer, R.T., Sieckman, D. Kenny, J.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             85 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="vk24/Jk4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FGSGTKLEIKR"
                                                                                                                                                                                                                                                                                                                                                                                     U29425
U29425.1 GI:2745913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (bases 1 to 339)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             73 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .>339
                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ಥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97328374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9184912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
                                           199
                                                                                                                                                                                                                               379
              591
                                                                       651
                                                                                                                                                                   319
                                                                                                                                                                                                                                                            831
                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                         RESULT 6
MMU29425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
              a
                                          ò
                                                                       g
                                                                                                  òγ
                                                                                                                               ΩD
                                                                                                                                                                δy
                                                                                                                                                                                          pp
                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                          qq
```

PAT 28-AUG-2000

linear

ó

Gaps

; 0

Length 339;

9

9

```
72.6%;
96.2%;
                  72.68;
96.28;
                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 368)
Landry, D.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 72.6
Best Local Similarity 96.2
Matches 325; Conservative
                                     Conservative
                                                                                                                                                                                                                                                                                                                          .Sequence 107
AR166317
                                                                                                                                                                                                                                                                                                                                                                                     Unclassified
                           Similarity
                                                                                                                                                                                                                                                                                                                    AR166317
                                                                                                                                                                                                                                                                                                                                                                  Unknown.
                                                                                                                                                                                                                                                                                                                                                                            Unknown
                 Query Match
Best Local Simi
Matches 325;
                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
FEATURES
                                                                                                                                                                                                                                                  396
                                                                                                                                                                                                                                                                                                 RESULT 10
AR166317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     276
                                                      96
                                                                                                                61
                                                                                                                                 216
                                                                                                                                                     121
                                                                                                                                                                                                            336
                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          336
                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                    LOCUS
                                                                                                               QQ
                                                                                                                                                    Q
                                                                                                                                                                                       QQ
                                                                                                                                                                                                                               рp
                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ογ
                                                                         g
                                                                                             δλ
                                                                                                                                 ŏ
                                                                                                                                                                       ò
                                                                                                                                                                                                           oγ
                                                                                                                                                                                                                                                 δy
                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PAT 28-AUG-2000
                                                                          PAT 17-0CT-2001
                                                                                                                                                                                                                                                                                                                            215
                                                                                                                                                                                                                                                                                                                                              61 ATCTCCTGCAGGTCTAGTAGGAGTCTCCTATATAGGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                  275
                                                                                                                                                                                                                                                                                                                                                                            335
                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                       96 GATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                 1 GATATTGTGATGACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC
                                                                                                                                                                                                                                                                                                                           156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                 216 TITCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTGCA
                                                                                                                                                                                                                                                                                                                                                                                                       276 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                 Length 339;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                          linear
                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                72.6%; Score 317.2; DB 6;
1larity 96.2%; Pred. No. 3.1e-93;
Conservative 0; Mismatches 13;
       TTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301 TTCACGTTCGGCTCGGGGACAAGTTGGAGATAAAACG 338
                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ų
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent: US 5948658-A 86 07-SEP-1999;
Location/Qualifiers
1. .368
                                                                         AR166313 339 bp 1
Sequence 99 from patent US 6280987.
AR166313.1 GI:16241580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AR072861 368 bp
Squence 86 from patent US 5948658.
AR072861. GI:9999624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Landry, D.W.
Anti-cocaine catalytic antibody
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="unknown"
81 c 94 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (bases 1 to 368)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unclassified.
                                                                                                                                                                                                                                                        Best Local Similarity
Matches 325; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95
                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                    source
                                                                                  DEFINITION
                                                                                                                                                                                                                      BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                            336
                                                                                                                                                              AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
KEYWORDŞ
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                   VERSION
KEYWORDS
SOURCE
                                                                                                                                                     REFERENCE
                                                      RESULT 8
AR166313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AR072861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS
        ò
                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   op
```

```
ó
                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PAT 17-0CT-2001
                                                                                                                                                        TITCIGCAGAGACCAGGACAAICTCCTCACCTCCTGATCTATITGATGTCCACCGGTGCA 180
                                                                                                                                                                                                                                                                       TTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTGCA 275
                                                                                                                                                                                                                                                                                                                                         395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTATATGAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  216 TITCIGCAGAGACCAGGACAATCICCTCAGCTCCTGATGTATTTGATGTCCACCGGTGCA 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCAGGAGICTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                  GATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                    156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215
                                  Gaps
                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                    AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ő
                                ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 368;
Length 368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                               TTCACGTTCGGCTCGGGGACAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 317.2; DB (
Pred. No. 3.1e-93;
0; Mismatches 13
Score 317.2; DB Pred. No. 3.1e-93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Anti-occaine catalytic antibody
Patent: US 6280987-A 107 28-AUG-2001;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       u
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              368 bp D
from patent US 6280987.
                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="unknown"
81 c 94 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AR166317.1 GI:16241584
```

0;

```
PAT 17-0CT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         276 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       336 AGTAGAGGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                        335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96 GATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                        TTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCGTGCA 275
                                                                                                                                                                                       96 GATATIGIGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                     AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                          Gaps
                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCGTGCA
                                                                                            1 GATATGGTGATGACGCAAGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTCC
                                                                                                                                                                                                                        TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC
                                                                                                                             156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 368;
                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                   Length
                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 309.2; DB 6;
Pred. No. 1.4e-90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18;
                                  9
                                                                                                                                                                                                                                                                                                                    TICACGITCGGCTCGGGGACAAGITGGAAAIAAAACG 433
                                                                                                                                                                                                                                                                                                                               309.2; DB 6
No. 1.4e-90;
                                                                                                                                                                                                                                                                                                                                                                                                     DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Anti-cocaine catalytic antibody
Patent: US 6289987-A 103 28-AUG-2001;
Location/Qualifiers
1. .368
                                                                                                                                                                                                                                                                                                                                                                                               368 bp DN Sequence 103 from patent US 6280987. AR166315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100
                                                         Mismatches
100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="unknown"
80 c 93 g
                                  Score
Pred.
  6
 93
                                                         .;
                                                                                                                                                                                                                                                                                                                                                                                                                                      AR166315.1 GI:16241582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 70.8%;
Best Local Similarity 94.7%;
Matches 320; Conservative
                                 70.8%;
94.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 (bases 1 to 368)
Landry, D.W.
  Ö
                                                          Conservative
 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unclassified
                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ø
  Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                95
  95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unknown
                                                          Matches 320;
                                  Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             216
                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
 BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
AR166315
LOCUS
                                                                                                                                                                             216
                                                                                                                                                                                                                          276
                                                                                                                                                                                                                                                                        336
                                                                                                                                                                                                                                                                                              241
                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                     368
                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   οqα
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δy
                                                                                                     qq
                                                                                                                                                     g
                                                                                                                                                                            δy
                                                                                                                                                                                                 Вp
                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                           οp
                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                          g
                                                                                   δŻ
                                                                                                                                δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PAT 28-AUG-2000
                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                         PAT 17-0CT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          291 TCAGTAGAGTGAAGGCTGAGGATGTGGGTGTATACTGTCAACACTTTGTAGACTATC 350
                                                                                                                                                                                                                                                                                                                                                                                                                              273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       131 CATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGAACAGATTTCACCCTGGAAA 290
                                                                                                                                                                                                                                                                                                                                                                   GGGATATIGIGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTT 153
                                                                                                                                                                                                                                                                                                                                                                                51 GCGATATGGTGATGACGCAGGATGAACTCTCCCAATCCTGTCACTTCTGGAGAATCAGTTT 110
                                                                                                                                                                                                                                                                                                                                                                                                                 CCATCTCCTGCAGGTCTAGGAGGTCTCCTGTATAAGGATGGGAAGACATACTTGAATT 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAA 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATC 393
 241 AGTAGAGTGAAGGCTGAGGATGTGGGTGCGTATTACTGTCAACAATTTGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCCACCGTG
                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                     Length 420,
                                                                                                                                                                                                                                                                                     4 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                              15; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATICACGITCGGCTCGGGGACAAGITGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 316; DB 6;
Pred. No. 7.9e-93;
0; Mismatches 15
                                      301 TTCACGTTCGGCTCGGGGACAAGTTGGAAATAAGACG 338
                          396 TICACGIICGGCICGGGACAAGIIGGAAAIAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA
                                                                                                          DNA
                                                                                                                                                                                                  I (bases I to 420)
Landry, D.W.
Anti-cocaine catalytic antibody
Patent: US 6280987-A 111 28-AUG-2001;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Landry, D.W.
Anti-cocaine catalytic antibody
Patent: US 5948658-A 90 07-SEP-1999;
                                                                                                                                                                                                                                                                                    ı
                                                                                                    Sequence 111 from patent US 6280987.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         368 bp
is 5948658.
                                                                                                                                                                                                                                                                                    108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
1. .368
                                                                                                                                                                                                                                                                     /organism="unknown"
95 c 115 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /orqanism="unknown"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 90 from patent US
AR072865
AR072865.1 GI:9999628
                                                                                                                                          AR166319.1 GI:16241586
                                                                                                                                                                                                                                                                                                                       72.3%;
95.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (bases 1 to 368)
                                                                                                                                                                                                                                                                                                                       Query Match 72.3
Best Local Similarity 95.6
Matches 325; Conservative
                                                                                                                                                                                                                                                           .420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unknown.
Unclassified.
                                                                                                                                                                                           Unclassified
                                                                                                                                                                                                                                                                                      ๗
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AR072865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unknown.
                                                                                                                                                                  Unknown
                                                                                                                                                                                Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                source
                                                                                                                                                                  SOURCE
                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
FEATURES
                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 12
AR072865
LOCUS
                                                                                                                                ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         394
                                                                                 RESULT 11
AR166319
LOCUS
                                                                                                                                                                                                                                                                                                                                                                      94
                                                                                                                                                                                                                                                                                                                                                                                                                  154
                                                                                                                                                                                                                                                                                                                                                                                                                                          111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                  οy
                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                               οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ΩÝ
  셤
                        Q
                                             g
```

ROD 03-AUG-1999

linear

```
2 (bases 1 to 899)
Kirschbaum_T.
Direct Submission
Submitted (23-DEC-1998) T. Kirschbaum, Adolf-Butenandt-Institut
fuer, Physiologische Chemie, Schillerstr. 44, D-80336 Muenchen, FRG
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /codon_start=1
/product="immunoglobulin light chain variable region"
/product="immunoglobulin light chain variable region"
/protein_id="CAB46171.1"
/db_xxef="G1:5305058"
/translation="MRCSLOFLGVLMFWISGVSGDIVITQDELSNPVTSGESVSISCR
SSKSLLYKDGKTYLNMFLQRPGQSPQLLIYLMSTRASGVSDRFSGSGSGTDFTLEISR
                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. [, [bases] to 899]
Schaeble, K.F., Thiebe, R., Bensch, A., Brensing-Kueppers, J., Heim, V., Kirschbaum, T., Lamm, R., Ohnrich, M., Pourrajabi, S.,
                                                                                                                                                                                                                                                                               Zachau, H.G. Characteristics of the immunoglobulin Vkappa genes, pseudogenes, relics and orphons in the mouse genome Eur. J. Immunol. 29 (7), 2082-2086 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /product="variable region of immunoglobulin kappa light
                                                                                                        AJ231<u>264.1</u> GI:5305057
IgVk gene; immunoglobulin; kappa light chain; variable region.
Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'note="heptamer recombination signal"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /tissue_type="spleen"
/clone_lib="Reference library, ICRF"
29. .888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   880. .888
/gene="hg24"
/note="nonamer recombination signal"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'note="octamer regulatory sequence"
                                                              DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            јоди(<135, .183,549. .>859)
/gene="hg24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   John (<135. .183,549. .>859)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Mus musculus"
                                                              фq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /chromosome="6"
/clone="ICRFy902G0497"
/sub_clone="cosmid Tl"
/haplotype="c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /strain="C3H"
/db_xref="taxon:10090"
                                                            899
                                                                       Mus musculus IgVk hg24 gene.
AJ231264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VKAEDVGVYYCQQLVEYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="hg24"
29, 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="hg24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          102. .107
/gene="hg24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   861. .867
/gene="hg24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 135. .183
/gene="hg24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 184. .548
/gene="hg24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 549. .859
/gene="hg24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /number=2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /number=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /number=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   chain"
                                                                                                                                                              Mus musculus
                                                                                                                                                                                                                                                                                                                                               99354924
                                                                                                                                                                                                                                                                                                                                                              10427970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 V_region
                                                       LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   intron
                                                                                                                                                          ORGANISM
                       RESULT 15
MMU231264
                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 exon
                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                               PUBMED
                                                                                                                                                                                                                                                                                                                                               MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     exon
                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDS
                                                                                                                                          SOURCE
                                                                                                                                                            MOUSE Immunoglobulin variable gene V kappa-24 encoding amino acids 4 to 95.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /trānslation="GVSGDIVITQDELSNPVTSGESVSISCRSSKSLLYKDGKTYLNW
FLQRPGQSPQLLIYLMSTRASGVSDRFSGSGSGTDFTLEISRVKAEDVGVYYCQQLVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. I (bases 1 to 815)
Gershenfeld,H.K., Tsukamoto,A., Weissman,I.L. and Joho,R. Somatic diversification is required to generate the V kappa genes of MOPC 511 and MOPC 167 myeloma proteins
Proc. Natl. Acad. Sci. U.S.A. 78 (12), 7674-7678 (1981)
6801657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein sequence is in conflict
79 TCTCTGGGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTT 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      139 CIGGAGAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGA 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGACATACTTGAATTGGTTTCTGCAGAGCCAGGACAATCTCCTCAGCTCCTGATGTATT 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGATGTCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCGAGTGGGTCAGGCACAG 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTTCACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAAC 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70.5%; Score 308; DB 10; Length 825; larity 98.4%; Pred. No. 3.6e-90; Conservative 0; Mismatches 5; Indels
                                                                                                                                                                                                                                 V00779.1 GI:51667
germ line: Ig kappa light chain; immunoglobulin.
Mus musculus.
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            314. .625
/product-"messenger RNA"
/product-"messenger RNA"
314. .625
/note-"coding sequence; Protein sewith the conceptual translation"
/codon_start=1
                                                                   396 TTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     232 t

    . 825
    /organism="Mus musculus"
    /db_xref="taxon:10090"
    314. .625

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /protein_id="CAA24156.1"
/db_xref="GI:1333953"
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
1. .825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 198 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   147 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AACTTGTAGAGTATCC 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 248
                                                                                                                                                                                                                       V00779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 311;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                       LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BASE COUNT
                                                                                 301
                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE
PUBMED
                                                                                                                                   RESULT 14
                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                     VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            609
                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                 a
                                                 ò
                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
```

```
0;
                                                                                                      Gaps
                       .
0
           Score 308; DB 10; Length 899;
Pred. No. 3.6e-90;
0; Mismatches 5; Indels
264 t
203 g
            Query Match
Best Local Similarity 98.4%;
Matches 311; Conservative
                                                                                                                               379 AACTTGTAGAGTATCC 394
183 c
249 a
BASE COUNT
ORIGIN
                                                                                     οy
                                                                                              g
                                                                                                                QQ
                                                                                                                           δλ
                                                                                                                                   g
                                         qq
                                                          Db
                                                                    δ
                                                                            ΩD
                                                                                                        οy
                                                  δλ
```

Search completed: April 26, 2003, 06:31:03 Job time : 875.354 secs

·					
					<b>,</b>
				•	
			,		

nucleic -

Run on:

Searched:

Database

. ⊗ Result

Sequence:

Perfect

```
BM783161 K-EST0061
BM71319 jj46b08.y
BG536224 60265445
BG536224 60265445
BG712430 AGENCOURT
BE774573 MYE409a
A7734035 2026602.y
AA054515 2056602.y
BG75503 602711509
BG75503 602711509
BG75503 602711509
BG75503 602711509
BG75505 K-EST008
BG75505 K-EST008
BG7555 G-EST008
BG7555 G-EST008
BG7555 G-EST008
BG7575 G-EST008
BG7575 G-EST008
BG7575 G-EST008
BG7757 G-EST008
BF17655 W-EST01
BF176559 G-EST01
BF176562 602712820
BG75895 G-EST01
BF176562 602712820
BG75895 G-GS712820
BG75895 G-GS712820
BG75895 G-GS712820
BG75895 G-GS712820
BG75895 G-GS712820
BG75895 G-GS712820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                         BF023001 343 bp mRNA linear EST 10-OCT-2 ux02c02.yl Soares_thymus_2NbMT Mus musculus cDNA clone IMAGE:3470306 5' similar to SW:KV2B_MOUSE P01627 IG KAPPA CHAIN V-II REGION VKAPPA167 PRECURSOR: ;, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 (bases 1 to 343)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tumor Gene Index
Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Trace considered overall poor quality
Seq primer: -40RP from Gibco
High quality sequence stop: 1.
Location/Qualifiers
1. 343
                                                                                                                                                                                                                                                                                                                                                                 ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Mus musculus"
                          BG53624
BQ712430
BF174573
A1734035
AA405415
BG755003
BG75508
BG75588
BG659215
A1882479
BM820052
                                                                                                                                 BQ711007
BB870575
BG530186
B1838327
BG547597
                                                                                                                                                                            BM007808
BF174767
AW405187
BF176195
BQ708918
                                                                                                                                                                                                                       BF174421
BF176198
BQ709417
                                                                                                                                                                                                                                                          BI765629
BG758592
BG758795
                                                                                                                H25625
BG342051
                                                                                                                                                                                                                                                                                   BI759427
BG685179
                                                                                                                                                                                                                                                BF868788
                                                                                                                                                                                                                                                                                                     BG541344
                                                                                                                                                                                                                                                                                                                       30130227
                                                                                                                                                                                                                                                                                                              3M89449
                                                                                                                                                                                                                                                                                                                                                                                                                                                       BF023001.1 GI:10754334
   house mouse.
 BF023001
237.4
235.6
234.8
234.2
234.2
234.2
233.8
                                                                                                                                                                                                                                                                                    7777800
                                                                                                                                                                                                              237.
                                                                                                                                                                                                                                                                                                                                                                                          RESULT 1
BF023001
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
 ပ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                602112548
uf46b05.y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BF023001 ux02c02.y
BB870732 BB870732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AW912881 uf46b05.y
BC031349 Mus muscu
BG963055 602828068
                                                                      (without alignments)
12240.775 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Description
                                                           April 26, 2003, 04:55:21; Search time 578.185 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BF785914
                                                                                                              1 aagctttacagttactcagc.....agttggaaataaaacgtacg
                                                                                                                                                                            32308132
        GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                          16154066 seqs, 8097743376 residues
                                                                                                                                                                         Potal number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUMMARIES
                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BF785914
AW912881
BC031349
BG963055
                                           nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BF023001
BB870732
                                                                                                                                IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               П
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       em_gss_mus:*
em_gss_other:*
                                                                                                                                                                                                                                                                                                                                                                                                         gb_gss:*
em_gss_hum:*
em_gss_inv:*
                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                              gb_est3:*
gb_est4:*
gb_est5:*
em_estfun:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        em_gss_pro:*
em_gss_rod:*
                                                                                        US-09-674-716B-2
437
                                                                                                                                                                                                                                                                                                                                                                                                                                     em_gss_pln:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12
10
10
11
13
                                                                                                                                                                                                                                                                                                                                                                                                                                             em_gss_vrt:'
                                                                                                                                                                                                                                                                em_estba:*
em_esthum:*
em_estin:*
em_estov:*
em_estpl:*
em_estpl:*
em_estpl:*
em_htc:*
db_estl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                               em_gss_mam:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                   em_estom:*
                                                                                                                                                                                                                                                                                                                                             gb_est2:*
gb_htc:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               343
351
906
400
935
725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73.0
                                                                                                                                                                                                                                                         EST:
                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             318.8
311.4
290
281.2
280
256
                                                                                                       score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
```

EST 10-OCT-2000

```
Email: genome-reségac.riken.go.jp,
URL:http://genome-reségac.riken.go.jp,
URL:http://genome-gac.riken.go.jp,
Carninol.p., Shibata,Y., Hayatau,N., Sugahara,Y., Shibata,K., Itoh
,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Normalization and subtraction of cap-trapper-selected cDNas to
prepare full-length cDNA libraries for rapid discovery of new
genes. Genome Res. . 10 (10), 1617-1630 (2000)
wagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E.,
Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura
,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and
Hayashizaki,Y.
RIKEN integrated sequence analysis (RISA) system--384-format
sequencing pipeline with 384 multicapillary sequencer. Genome Res. .
10 (11), 1757-1771 (2000)
Konno,H., Fukunishi,Y., Shibata,K., Itoh,M., Carninci,P., Sugahara
,Y. and Hayashizaki,Y.
Computer-based methods for the mouse full-length cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone="G630024M15"
/clone_lib="RIKEN full-length enriched, adult male jejunal
and colic lymph node"
/sex="male"
Unpublished (2001)

Contact: Yoshinide Hayashizaki
Laboratorry for Genome Exploration Research Group, RIKEN Genomic
Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
The Institute of Physical and Chemical Research (RIKEN)
Tell 17-22 Suebniro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Tel: 81-45-503-9226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                encyclopedia: real-time sequence clustering for construction of nonredundant cDNA library. Genome Res. 11 (2), 281-289 (2001) Please visit our web site (http://genome.gsc.riken.go.jp) for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          83 GGAGTCAGTGGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGA 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCTGTATAAGGATGGGAAGACA 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                204 TACTTGAATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTC 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23 CAAGTTCTCAGAATGAGGTGCTCTCTTCAGTTCCTGGGGGGTGCTTATGTTCTGGATCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24 CAGGACCTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGGTGCTTATGTTCTGGATCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /tissue_type="jejunal and colic lymph node"
/dev_stage="adult"
/note="pooled tissues; (tissue_type=cerebellum,
dev_stage=16 days neonate, sex=mixed),
(tissue_type=cerebellum, dev_stage=0 day neonate,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 10; Length 351;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 311.4; DB 10
Pred. No. 2.6e-84;
); Mismatches 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Mus musculus"/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           e mouse tissues.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   71.38;
96.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
Matches 318; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ۵
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        143
       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      òγ
                                                                                                      bbB/0/32 RIKEN full-length enriched, adult male jejunal and colic lymph node Mus musculus cDNA clone G630024M15 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Akimura, T. Arakawa, T., Carninci, P., Furuno, M., Hanagaki, T., Akimura, T., Arakawa, T., Carninci, P., Furuno, M., Hanagaki, T., Hayatsu, N., Hiramoto, K., Hiraoka, T., Hirozane, T., Imotani, K., Ishii, Y., Ito, M., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Matsuyama, T., Nakamura, M., Nishi, K., Nomura, K., Numasaki, R., Okazaki, Y., Okido, T., Saito, R., Sakai, C., Sakai, K., Sakazume, N., Sasaki, D., Sato, K., Shibata, K., Shinagawa, A., Shiraki, T., Sogabe, Y., Suzuki, H., Tagawa, A., Takahashi, F., Takaku-Akahira, S., Tanaka, T., Tomaru, A., Toya, T., Watahiki, A., Yasunishi, A., Muramatsu, M. and Hayashizaki, Y. RIKEN Encyclopedia of Mouse Full-length cDNAs (Akimura, T., et al.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTTATGTTCTGGATCTCTGGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTC 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         133 ATATAAGGATGGGAAGACATACTTGAATAGGTTTCTGCAGAGACCAGGACAATCTCCTCA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13 GCTTATGTTCTGGATCTCTGGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTC 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        185 GTATAAGGATGGGAAGACATACTTGAATTGGTTTCTGCAGAGACCAGGACAATCTCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      245 GCTCCTGATGTATTTGATGTCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             193 GCTCCTGATCTATTTGATGTCCACCCGTGCATCAAGAGTCTCAGACCGGTTTAGTGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         125 CAATCCTGTCACTTCTGGAGAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 12; Length 343;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73.0%; Score 318.8; DB 12; ilarity 97.9%; Pred. No. 1.4e-86; Conservative 0; Mismatches 7;
                                                                   /clone_lib="Soares_thymus_2NbMT"
                                                                                                                                                                                                                                                                                                                                                                                                             96 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      313 GTATTACTGTCAACAACTTGTAGAGTATCC 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTATTACTGTCAACAACTTGTAGAGTATCC 394
  /strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="IMAGE:3470306"
                                                                                                                                                                                                                                                                                                                                                                                                             86 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BB870732.1 GI:17116942
                                                                                           /sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                             89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      323;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                        BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 2
BB870732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

ᡣ

Sat Apr

```
90
                                                                                                                                                                                                                                                       AW912881
                                                                                                                                                                                                                                                                                        EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                   AW912881
LOCUS
                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           182
     324
                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE CC
ORIGIN
                               QQ
                                                                    ōλ
                                                                                                  pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ōλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QQ
                                                                                                                                                 BE785914 906 bp mRNA linear EST 12-JAN-2001
602112548F1 NCI_CGAP_Kid14 Mus musculus cDNA clone IMAGE:4240762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /GD_xrer="canumidation" / Colone="IMAGE:4240762"
/Clone=Lib="NGE:4240762"
/Clone=Lib="NGE:4240762"
/lab_host="DH10B (T1 phage-resistant)"
/lab_host="DH10B (T1 phage-resistant)"
/note="Yorgan: kidney; Vector: pCWw-SPORT6; Site_1: NotI;
Site_2: Sall; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.75 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library. |"
a 232 c 237 g 194 t
                                                                                                                                                                                                                                                                                                                                                                              Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://mage.lln.gov
Plate: LLAM9855 row: p column: 11
High quality sequence stop: 718.
                                                                                                                                                                                                                                                                                        Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63 GGAGCCATTGGGGATATTGTGATGACTCAGGCTGTACCTCTGTACCTGTCACTCTGGA 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                183 GACTTGTATTGGTTCCTACAGAGGCCAGCCAGTCTCCTCAGCTCCTGATATTGGATG 242
263 TCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGGTCAGGAACAGATTTC 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              84 GGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGA 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                144 GAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACA 203
                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 906)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                        Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGGACCTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGGTGCTTATGTTCTGGATCTCT 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                204 TACTTGAATTGGTTTCTGCAGAGCCAGGACAATCTCCTCAGCTCCTGATGTATTTGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          66.4%; Score 290; DB 12; Length 906; llarity 81.7%; Pred. No. 1.3e-77; Conservative 0; Mismatches 75; Indels
                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; E
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                 Mus musculus
Eukaryota; Metazoa; Chordata; Craniata;
Mammalia; Eutheria; Rodentia; Sciurognat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Mus musculus"
                                   324 ACCCTGGAAATCAGTAGAGTGAAGGCTGA 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /db_xref="taxon:10090"
                                                    323 ACCCTGGAAATCAGTAGAGTGAAGGCTGA 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /strain="FVB/N"
                                                                                                                                                                                                                  BF785914.1 GI:12090950
                                                                                                                                                                        5', mRNA sequence.
BF785914
                                                                                                                                                                                                                                                                                                                                                                    Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           906.
                                                                                                                                                                                                                                                       house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           335;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Loca
Matches
                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                  KEYWORDS
                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                  RESULT 3
                                                                                                                                   BF785914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                      VERSION
 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                 ò
                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

```
AW912881
400 bp mRNA linear EST 25-MAY-2000 446605.1 Soares_mammary_gland_NNLMG Mus musculus cDNA clone IMAGE:1514385 5' similar to gb:J00560 mouse ig Kappa mrna from mopc21 6 other myeloma mrna 3' (MOUSE);, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chote-Vector: pTTT3D-Pac (Pharmacia) with a modified polylinker; 1st strand cDNA was prepared from mammary gland tissue from a lactating female, and was then primed with a Not I - Oilgo(dT) primer. Double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified pTT3 vector. Library is normalized. Library was constructed by Bento Soares and M. Fatima Bonaldo. "

90 c 110 g 110 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (2002) 1 (20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL ; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
MGI:941237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATATTGTGATAACCCCAGGATGAACTCTCCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62 GATATTGTGAFGACTCAGGCTGCACCCTCTGTACCTGTCACTGTCTGAGAGAGTCACTATCC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36 ATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTCAGTGGG 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 ATTCGGTACGAGGCTGTTTTTCTGGGCTGCTTGTGCTCTGGATCCCTGGAGCCATTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCCTGGAAATCAGTAGAGGTGAAGGCTGAGGATGTGGGGTGTGTATTACTGTCAACAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 10; Length 400;
                                                                                                                                                                                                    384 GTAGAGTATCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                          363 CTAGAATATCCGTACACGTTCGGAGGGGGGACCAAGCTGGAATAAAACG 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /db_xref="taxon:10090"
/clone="INAGE:1514385"
/clone_lib="Soares_mammary_gland_NMLMG"
/sex="female (lactating);
/tissue_type="nammary gland"
/lab_host="DHIDB"
/lab_host="DHIDB"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 4.7e-75;
0; Mismatches 73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     64.3%; Score 281.2;
81.7%; Pred. No. 4.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers 1. .400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Seg primer: -40RP from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AW912881.1 GI:8078508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 81.7
Matches 325; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          house mouse.
```

```
50 TCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTCAGTGGGGGATATTGTGATAAC 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mRNA sequence.
BG963055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                               410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASE COUNT
                                       7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 6
BG963055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
                                     q
                                                                             ò
                                                                                                                Op
                                                                                                                                                        Qγ
                                                                                                                                                                                              qq
                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                           HTC 03-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Clone distribution: MGC clone distribution information can be found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Steven Jones, Jennifer Asano, Ian Bosdet, Yaron Butterfield, Susanna Chan, Readman Chiu, Chris Fjell, Erin Garland, Ran Guin, Letticia Hsiao, Martin Krzywinski, Reta Kutsche, Oliver Lee, Soo Sen Lee, Victor Ling, Carrie Mathewson, Candice McLeavy, Steven Ness, Pawan Pandoh, Anna-Liisa Prabhu, Parvaneh Saeedi, Jacqueline Schehn, Dannes Smailus, Michael Smith, Lorraine Spence, Jeff Stott, Michael Thorne, Miranada Tsai, Natasja van den Bosch, Jill Vardy, George Yang, Scott Zuyderduyn, Marco Marra.
                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Strausberg_R.
Direct Submission
Submitted (03-JUN-2002) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Series: IRAK Plate: 67 Row: j Column: 4
This clone was selected for full length sequencing because it
passed the following selection criteria: Similarity but not
AGTAGAGTGÀAGGCTGAGGATGTGGGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                 0; . Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: cgapbs-remail.nih.gov
Tissue Procurement: Marcello Bento Soares, Ph.D.
CDNA Library Preparation: Soares Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
BNA Sequencing by: Genome Sequence Centre,
BC Cancer Agency, Vancouver, BC, Canada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mouse"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   identity to protein This clone has the following problem: no cloning site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 935;
                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /db_xref="taxon:10090"
/clone="IMAGE:1514385"
/tissue_type="Mammary gland, lactating
/clone_lib="Soares_mammary_gland_NMLMG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 280; DB 11;
Pred. No. 1.5e-74;
0; Mismatches 65;
                                                                                                                                                        TTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                          TACACGTTCGGAGGGGGGCCAAGCTGGAAATAAAACG 399
                                                                                                                                                                                                                                                                                 935 bp mRNA
Mus musculus, clone IMAGE:1514385, mRNA.
BC031349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="Vector: pT7T3D-Pac"
247 c 208 g 229 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                         Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                              BC031349.1 GI:21315064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       64.18;
83.18;
                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa;
Mammalla; Eutheria;
1 (bases 1 to 935)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         microdeletion.
                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                        house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 319; Conserv
                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
                                                                                                                302
                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                      396
                                                                                                                                                                                            362
                                                                                                                                                                                                                                                   RESULT 5
BC031349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                    SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                         rocns
                                       a
                                                                                                              g
                                                                                                                                                      ò
                                                                                                                                                                                          g
                                                                             ò
```

```
BG963055 72-JUN-2001 02828068F1 NCI_CGAP_CO24 Mus musculus CDNA clone IMAGE:4982825 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone="IMAGE:4982825"
/clone_lib="NCI_CGAP_CGAP"
/lab.ost="DHIGB (TI_phage-resistant)"
/note="Organ: colon; Vector: pCMV-SPORT6; Site_1: NotI;
Site_2: Sal1; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.6 Kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: gapbs-r@mail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://mage.llnl.gov
Plate: LLAM10986 cove g column: 18
High quality sequence stop: 719.
                                                                                                                                                                                                                                             þe
                                                                                   110 CCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCCATCTCCTGCAGGTC 169
                                                                                                                   62 TCAGGCTGCACCCTCTGTACTGTGTCCTGGAGAGTCAGTATCCATCTCCTGCAGGTC 121
                                                                                                                                                                                                             170 TAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGGTTTCTGCAGAGACC 229
                                                                                                                                                                                                                                                                                                                                       230 AGGACAAICTCCTCAGCTCCTGAIGTATTTGATGTCCACCCGTGCATCAGGAGTCTCAGA 289
                                                                                                                                                                                                                                                                                                                                                                    182 AGGCCAGTCTCCTCAGCTCCTGATATATCGGATGTCCAACCTTGTCTAGGAGTCCCAGA 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                              290 CCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATCAGTAGAGTGAAGGC 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           242 CAGGITCAGTGGCAGTGGGTCAGGAACTGCTTTCACACTGAGAATCAGTAGAGTGGAGGC 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     350 TGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCATTCACGTTCGGCTC 409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 725)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
DB 13; Length 725;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 256; DB 1;
Pred. No. 3e-67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /strain="FVB/N"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGGACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            362 GGGGACCAAGCTGGAAATAAAACG 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BG963055.1 GI:14350692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                58.6%;
```

```
human.
                                                                                                                                                                        Best Local Sim:
Matches 311;
                                                                                                                                                          Query Match
                                                                                                                  BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                   06
                                                                                                                                                                                                                                                                                                                        150
                                                                                                                                                                                                                                                                                                                                                                                                                                  270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 8
BM511309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                          QΥ
                                                                                                                                                                                                                                                                                                                                                  рp
                                                                                                                                                                                                                                                                                                                                                                           QΥ
                                                                                                                                                                                                                                                                                                                                                                                                       QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                  Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qγ
                                                                                                                                                                                                                ōλ
                                                                                                                                                                                                                                                                     δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="Organ: Stomach; Vector: pCNS; Site_1: EcoRI; Site_2: NotI; The poly (A)+ RNA was dephosphorylated with bacterial alkaline phosphatase (BAP) and then decapped with tabacco acid pyrophosphatase (TAP). The decapped intact mRNA was ligated with DMR-RNA linker including EcoR I site by treatment of T4 RNA ligase and the first strand cDNA was synthesized from oligo dT-selected mRNA by
                                                                                                                                                                                                                                                                                                                                                                                                                            634 bp mRNA linear EST 05-MAR-2002 K-EST061018 S18N669761 Homo sapiens cDNA clone S18N669761-3-E01 BN783161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 634)
Kim, N.S., Hahn, Y., Oh, J.H., Lee, J.Y., Ahn, H.Y., Chu, M.Y., Kim, M.R.,
Oh, K.J., Cheong, J.E., Sohn, H.Y., Kim, J.M., Park, H.S., Kim, S. and
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                263
                                                                                                                                                                                                                243
                                                                                                                                                                                                                                           TCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTC 323
                                                                                                                                                                                                                                                        ACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGGGGTGTATTACTGTCAACAACTT 383
                                                                           84 GGAGTCAGTGGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGA 143
                                                                                            Gaps
                         204 TACTIGAATIGGIITCIGCAGAGCCAGGACAAICICCTCAGCICCTGAIGIAITIGAIG
3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Korea Research Institute of Bioscience & Biotechnology 52 Eceun-dong Yuseong-gu, Daejeon 305-333, South Korea Tel: +82-42-860-4470
                                                                                                                                                                                                                                                                                                                                                                    384 GTAGAGTATCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACG 433
80; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21C Frontier Korean EST Project 2001
 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone="S18N669761-3-E01"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone_lib="$18N669761"
/sex="F"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: yongsung@mail.kribb.re.kr
Plate: 3 row: E column: 01
High quality sequence stop: 634.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /lab_host="Top10F'"
  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BM783161.1 GI:19131393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genome Research Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fax: +82-42-860-4409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished (2002)
Contact: Kim YS
  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oh, K.J.,
Kim, Y.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EST
  327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                               264
                                                                                                                                                                                                                                                                                                   324
                                                                                                                                                                                                                                                                                                                                                                                   364
    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 7
BM783161
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                       q
                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                     Op
                                                                                                                                                                                                                                                                                                QΫ
                                                                                                                                                                                                                                                                                                                                                       Qγ
                                                   q
                                                                                 ò
                                                                                                           g
                                                                                                                                    οy
                                                                                                                                                                                         δy
```

```
ij46b08.yl Human insulinoma Homo sapiens cDNA clone IMAGE:5633990 5' similar to SW:KV2F.HUMAN P06310 IG KAPPA CHAIN V-II REGION RPMI 6410 PRECURSOR.;, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 522)

Melton, D., Brown, J., Kenty, G., Permutt, A., Lee, C., Kaestner, K., Lemishka, I., Scearce, M., Brestelli, J., Gradwohl, G., Clifton, S., Hillier, L., Marra, M., Pape, D., Wylle, T., Martin, J., Blistain, A., Schmitt, A., Theising, B., Kitter, E., Ronko, I., Bennett, J., Cardenas, M., Gibbons, M., McCann, R., Cole, R., Tsagareishvili, R., Williams, T., Endocrine Pancreas Consortium
priming with dT-tailed vector. The dT-tailed vector was adjusted to have about 60nt. The CDNA vector was circularized with E. coil DNA ligase after digestion of EcoRI which site is also included in vector. An RNA strand converted to a DNA strand by Okayama-Berg method. The obtained cDNA vectors were used for transformation of competent cells E. coil ToplOF' by electroporation method. The CDNA libraries constructed by this method are full-length enriched cDNA libraries to a large of the constructed by t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Endocrine Pańcreas Consortium
Barvard University, Howard Hughes Medical Institute
Dept of Molecular and Cellular Biology, 7 Divinity Ave, Cambridge,
MA 02138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             330 GAAATCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAG 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTGGGGATATTGTGATAACCCAGGATGAACTCTCTCCAATCCTGTCACTTCTGGAGAATCA 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished (2000)
Other_ESTs: ij46b08.xl
Contact: Douglas Melton, Klaus H. Kaestner, & Hiroshi Inoue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30 CTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTTTCCATCTCCAGGAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 253.4; DB 14; Length 634;
Pred. No. 1.8e-66;
); Mismatches 96; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                390 TATCCATTCACGTTCGGCGCACAAAGTTGGAAATAAAACGTAC 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BM511309
BM511309.1 GI:18682452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       58.0%;
76.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
```

Euteleostomi;

```
/organism="Homo saplens"
/dp.xref="Laxon:0606"
/db.xref="Laxon:0606"
/clone_"ImAdcE:464031"
/clone_"ImAdcE:464031"
/clone_"Ib="NHH_MGC_77"
/lab_host="HollOB (TI phage-resistant)"
/note="Organ: lung: Vector: pDNR-LIB (Clontech); Site_I:
SfiI (ggcgctcgggcc); Site_2: SfiI (ggccattatggcc); 5' and
3' adaptors were used in cloning as follows: 5' adaptor
sequence: 5'-CAGGCGATTATGGCC-3' and 3' adaptor sequence:
5'-ATTCTAGAGGCGGGCGGCATTATGGCC-3' and 3' where B = A,
C, or G and N = A, C, G, or T). Average insert B = A,
C, or G and N = A, C, G, or T). Average insert B = A,
C, or G and N = A, C, B, Dr. 12.15 colonies contained inserts
by PCR: This library was enriched for full-length clones
and was constructed by Clontech Laboratories (Palo Alto,
CA) Note: this is a NIH MGC Library."
                                                                                                                                                             Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue procurement: CLONTECH Laboratories, Inc.
cDNA Library Preparation: CLONTECH Laboratories, Inc.
cDNA Library Preparation: CLONTECH Laboratories, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
clone distribution: MG clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://mage.lln.gov
Plate: LLCMIS17 row: i column: 04
High quality sequence stop: 737.
Location/Qualifiers
:ce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          86 AGTGGGGATATTGTGATGATGATGATCTCCACTCCCCTGCCGGTCACCCCTGGAGAGCCC 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleosto
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 751)
NHT-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    90 AGTGGGGATATTGTGATAACCCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCA 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           210 AATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACC 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           330 GAAATCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30 CTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGGGGTGCTTATGTTCTGGATCTCTGGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     270 CGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 12; Length 751;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     390 TATCCATTCACGTTCGGCTCGGGACAAAGTTGGAAATAAAACGTAC 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 250.2; DB 12;
Pred. No. 1.8e-65;
0; Mismatches 98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                57.3%;
ilarity 75.9%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           dest Local Sim
Matches 309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BASE COUNT
ORIGIN
            ORGANISM
                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 10
BG536224
                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 150
                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                   1. .522
/organism="Homo saptens"
/db_xref="taxon:9606"
/clone="lawfac:563990"
/clone="lawfac:563990"
/clone="lawfac:563990"
/clone=lib="Human insulinoma"
/tissue_type="lawlinoma"
/tissue_type="lawlinoma"
/tab_nost="DH10B (phage-resistant)"
/note="Organ: pancreas; Vector: pBluescript SK-; Site_1:
Xhoī; Site_2: BcoRi; Constructed with lambda ZAPII system
(Stratagene) by Dr. J. Ferrer, in vivo mass-excised to
pBluescript SK- by Dr. H. Inoue following the Washington
University protocol
(http://genome.wustl.edu/est/lambda_protocol.shtml).
Please context Hiroshi Inoue, MD/PhD for further
information on this library (Metabolism Division, Permutt
Laboratory, Washington University School of Medicine, Box
8127, 660 Seculid Ave, St. Louis, MO 63110). Note: this
is a Washington University Pancreas EST project library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BG542438 751 bp mRNA linear EST 03-APR-2001 602569513F1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:4694091 5',
                                                                             Library was constructed by Dr. J. Ferrer In vivo mass-excised to pBluescript SK- by Dr. H. Inoue DNA sequencing by: Washington University Genome Sequencing Center For information on obtaining clone please contact: Dr. Hiroshi Inoue (hinoue@im.wustl.edu) Seq primer: -40RP from Gibco High quality sequence stop: 429.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCA 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GITTCCATCICCIGCAGGICIAGIAAGAGICICCIGIAIAAGGAIGGGAAGACAIACIIG 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 210 AATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACC 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          194 GATTGGTACCTGCAGAAGCCAGGGCAGTCTCCACAGACTCCTGATCTATTTGGGTTCTATT 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          270 CGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTG 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAATCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAG 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14 CTCACAATGAGGCTCCCTGCTCAGCTCCTGGGCTGCTAATGCTCTGGGTCTCTGGATCC 73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30 CTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTTGGATCTCTGGAGTC 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 251.8; DB 13; Length 522;
Pred. No. 5e-66;
0; Mismatches 97; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    390 TATCCATTCACGTTCGGCTCGGGGACAAGTTGGAAATAAAACGTAC 436
                                                    Email: dmelton@biohp.harvard.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mRNA sequence.
BG542438
BG542438.1 GI:13534671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       57.6%;
76.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 76.2
Matches 310; Conservative
          617-495-1812 617-495-8557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 9
BG542438
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

ö

Gaps 89 85

ő

209 205 329

389

```
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NIH_MGC_Library."
                                                                                                                    5', mRNA sequence.
BQ712430
BQ712430.1 GI:21851329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57.2%;
76.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 76.4
Matches 307; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                          .995
                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      242
                                                                                                                                                                              human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 186
                                                                                                         DEFINITION
                                                                                                                                                                                         ORGANISM
                                                                 RESULT, 11
BQ712430
LOCUS
                                                                                                                                                                                                                                                                          JOURNAL
COMMENT
                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                KEYWORDS
                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                  VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ōλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QΫ́
                     qq
 δλ
                                                                                                                                                                                                                                                                                                                                                                      ö
BG536224 787 bp mRNA linear EST 03-APR-2001 602565445F1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:4690258 5',
                                                                                                            Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90 AGTGGGGATATTGTGATAACCCAGGATGAACTCTCCCAATCCTGTCACTTCTGGAGAATCA 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       210 AATTGGTTTCTGCAGAGCCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACC 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGGGCCTCCGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTG 325
                                                                                                                                                                                                                                                                             þe
                                                                                                                                  NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30 CICACCATGAGGTTCTCTGTTCAGTTTCTGGGGGGTGCTTATGTTCTGGATCTCTGGAGTC 89
                                                                                                                                                                                                                                  CDNA Library Preparation: CLONTECH Laboratories, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at:
http://image.lln.gov
Plate: LLCM1507 row: i column: 11
High quality sequence stop: 721.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          146 GCCTCCATCTCCTGCAGGTCTAGTCAGAGCCTCCTGCATAGTAATGGATACAACTATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26 CTCACAATGAGGCTCCCTGCTCAGGGCTCCTGGGGTCTCTGGATCATCTCTGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               150 GTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTG
                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutelec
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 787;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98; Indels
                                                                                                                                                                                        Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: CLONTECH Laboratories, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 250.2; DB 12;
Pred. No. 1.8e-65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                       BG536224.1 GI:13527769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            57.3%;
75.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         309; Conservative
                                                                                                                                                                               Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                             .787
                             mRNA sequence.
                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                    human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           270
                                                                                                                                     REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       266
                                                                                               ORGANISM
               DEFINITION
                                           ACCESSION
                                                        VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                             COMMENT
                                                                                  SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qγ
```

```
/organism="Homo sapiens"
/organism="Homo sapiens"
/db.ref="taxon:9606"
/clone="IMAGE:627729"
/clone_lib="NiH_MGC_l13"
/clone_lib="NiH_MGC_l13"
/clone_lib="NiH_MGC_l13"
/lab_host="Ditl0B (phage-resistant)"
/lab_host="Ditl0B (phage-res
                                                                                                                                                                                                                                                                                                                                                        BQ712430
AGENCOURT_8352203 NIH_MGC_113 Homo sapiens CDNA clone IMAGE:6277729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. I (bases 1 to 995)
II HWGC http://mgc.noi.nih.gov/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   155 CATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTG 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              246 CTCCGGGGTCCCTGACAGGTTCAGTGGAGTGGATCAGGCACAGATTTACACTGAAAAT 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95 GGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTC 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GITICIGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCGGTGC 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         35 CATGAGGTTCTCTGTTCAGTTTCTGGGGGGGCTGCTTATGTTCTGGATCTCTGGAGTCAGTGG 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: capbs_remail.nih.gov
Tissue Procurement: Dr. Mark Watson
Tissue Procurement: Dr. Mark Watson
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can left. //image.lln.gov
http://image.lln.gov
Flate: LLCMA464 row: j column: 02
High quality sequence stop: 645.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     275 ATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 250; DB 14; Length 9
Pred. No. 2.3e-65;
0; Mismatches 95; Indels
390 TATCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACGTAC 436
                                                 227 t
```

ò

ò

```
CTCACCATGAGGTTCTCTGTTCTGGGGGGGGTGCTTATGTTCTGGATCTCTGGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                            90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
AI734035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rocus
                           g
                                                                            δ
                                                                                                                  g
                                                                                                                                                          δ
                                                                                                                                                                                                qq
                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /tissue_type="Blood"
/cell_type="myeloma"
/dev_stage="multiple myeloma"
/dev_stage="multiple myeloma"
/dev_stage="multiple myeloma patients' bone
marrow were purified by magnetic cell sorting. mRNA were
purified and an oligo d(T)8 primer containing XhoI
restriction site was used to prime first strand synthesis
using M-MLV reverse transcriptase. To protect the cDNAs
from XhoI digestion in subsequent cloning step, the
nuclectide analogue 5-methyl-dCTP was added to monitor
the quantity and quality of first strand synthesis. After
second-strand synthesis and blunting of cDNA termini,
ECORI adapters were ligated, followed by kinase treatment
and digestion with XhoI. The cDNAs were then
size-fractionated using Sepheacryl S-500 column and then
ligated into ECORI and XhoI digested Lambda Zap Express
vector. The ligation product was packaged using Gigapack
II peackaging extract. The library had primary litre of
approx. 1x106. Clones from the primary library were
randomly selected for single pass sequencing."
                                                                                                                                                                                                                                  BF174573 491 bp mRNA linear EST 23-MAR-2001
MYE3409a Myeloma (MYE) cDNA library Homo sapiens cDNA, mRNA
                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 491)
Claudio,J.O., Tang,H., Khan,E.M., Voralia,M., Li,Z., Cukerman,E., Franciso-Pabalan,O., Liew,C.C. and Stewart,A.K.
Unpublished (2000)
Contact: A. Keith Stewart, M.D.
Oncology Research
        CAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCC 394
                             610 University Ave., 5-126, Toronto, Ontario, M5G 2M9, Canada
Tel: (416) 946-4639
Fax: (416) 946-6546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FORWARD: 5'-GCCAAGCTCGAAATTAACCCTCACTAAAGGG-3'
BACKWARD: 5'-CCAGGAATTGAATGGACTCACTATAGGGCG-3'
Seg primer: 5'-CAAAATTAACCCTCACTAAAGG-3'.
Location/Oualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone_lib="Myeloma (MYE) cDNA library"
/sex="male"
                                                                                    395 ATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACGTAC 436
                                                                                                                k.stewart@utoronto.ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             University Health Network
                                                                                                                                                                                                                                                                                           BF174573
BF174573.1 GI:13440787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57.0%; 75.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ouery Match
Best Local Similarity 75.7
Matches 308; Conservative
                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRimers
                                                                                                                                                                                                                                                                          sednence.
                                                                                                                                                                                                                              BF174573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email:
PCR PRi
                                                                                                                                                                                                                                                                                                                                                       human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                              LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
          335
                                                                                                                                                                                        RESULT 12
BF174573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BASE COUNT
                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                               KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                              q
                                                                                                                             a
```

ö

Gaps

0;

Indels

Score 249.2; DB 12; Pred. No. 3.1e-65; 0; Mismatches 99; 1

Length 491;

```
EST 24-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Robert Straubberg, Ph.D.

Email: cgapbs rémail.nih.gov
This clone is available royalty-free through LLNL; contact the
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.linl.gov) for further information.
This read is a RESEQUENCE of a previously sequenced human clone
Original clone citation: WashU-NCI human EST Project
This read has been verified (found to hit its original self in the
correct orientation)
Insert Length: 1053 Std Error: 0.00
Seq primer: -40RP from Gibco.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              zu56d02.y5 Soares ovary tumor NbHOT Homo sapiens CDNA clone
IMAGE:741987 5' similar to gb:X72467 IG KAPPA CHAIN PRECURSOR V-II
REGION (HUMAN);, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 425)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                 AGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCA 149
                                                                                                                                                                                                                                                                                                                                                                                                                                   330 GAAATCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAG 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                         150 GTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTG
                                                                                                                                                                                                                                                  210 AATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACC
                                                                                                                                                                                                                                                                                                                                                                    270 CGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        390 TATCCATTCACGTTCGGGTACAAAGTTGGAAATAAAACGTAC 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/db_xref="GDB:5942254"
/db_xref="taxon:9606"
/clone="IMAGE:741987"
/clone_lib="Soares ovary tumor NbHOT"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        425 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AI734035
AI734035.1 GI:5055148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tumor Gene Index
Unpublished (1997)
Other_ESTs: zu56d02.s1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /sex="Female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AI734035
```

us-09-674-716b-2.rst

a

ò g q οy q δ q οχ

ò

ŏ

```
human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                              BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 15
BG755003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŏλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

E 1 (bases 1 to 442)

S Hiller, L. Allen, M., Bowles, L., Dubuque, T., Geisel, G., Jost, S., Krizman, D., Kucaba, T., Lacy, M., Le, N., Lennon, G., Marra, M., Martin, J., Moore, B., Schellenberg, K., Steptoe, M., Tan, F., Theising, B., White, Y., Wylle, T., Waterston, R. and Wilson, R., Theising, B., Washbrord in the EST Project

L Unpublished (1997)

Contact: Wilson RK Washington University School of Medicine
4444 Forest Park Park Parkway, Box 8501, St. Louis, MO 63108

Tel: 314 286 1800
                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EST 09-NOV-1997
adapters (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of a modified pT7T3 vector (Pharmacia). Library constructed by Bento Soares and M.Fatina Bonido. " 112 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llonl.gov) for further information. Insert Length: 1053 Std Error: 0.00 Seq primer: -28ml3 rev2 ET from Amersham.
                                                                                                                                                                                                                                                                                                                                                                                                          194
                                                                                                                                                                                                                                                                                                                                                                                                                                            210 AATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCC 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zubedia. Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:741987 5' similar to gb:x72467 IG KAPPA CHAIN PRECURSOR AA405415
                                                                                                                                                                                                                                                                                            90 AGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCA 149
                                                                                                                                                                                                                                                                                                                195 GATTGGTATCTGCAGAAGCCAGGCCAGTCTCCACAGCTCCTGATCTATTTGGGTTCTAAT 254
                                                                                                                                                                            Gaps
                                                                                                                                                                                                                30 CTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTC 89
                                                                                                                                                                                                                                                    74
                                                                                                                                                                                                                                    15 CTCACAATGAGGCTCCCTGCTCAGCTCCTGGGGCTGCTAATGCTCTGGGTCTCTGGATCC
                                                                                                                                                                                                                                                                                                                                                                                          GTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        270 CGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    330 GAAATCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAG
                                                                                                                                                                            ó:
                                                                                                                                    Score 248.6; DB 9; Length 425;
Pred. No. 4.4e-65;
0; Mismatches 99; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              390 TATCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACGTAC 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  375 TCTCCTCACACTTTTGGCCAGGGACCAAGCTGGAGATCAAACGAAC 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: est@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA405415.1 GI:2063652
                                                                                                                                    Query Match 56.9%;
Best Local Similarity 75.7%;
Matches 308; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                              88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      numan.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                              BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                    150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
AA405415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                ORIGIN
```

g

QQ δλ

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BG755003 880.bp mRNA linear EST 15-MAY-2001 602711509F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4851723 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens Sukaryota, Chordata; Craniata; Vertebrata; Buteleostomi; Maukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo. 1 (bases 1 to 880) 1 (bases 1 to 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        270 CGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTG 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                330 GAAATCAGTAGAGTGAAGGCTGAGGATGTGGGGTGTGTATTACTGTCAACAACTTGTAGAG 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTGGGGATATTGTGATAACCCCAGGATGAACTCTCCCAATCCTGTCACTTCTGGAGAATCA 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    75 AGTGGGGATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCATCCCTGGAGAGCCG 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         210 AATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACC 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30 CTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGGTGCTTATGTTCTGGATCTCTGGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15 CICACAAIGAGGCICCCIGCICAGCICCIGGGGCTGCIAAIGCICTGGGICTCIGGAICC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rémail.nih.gov
Tissue Procurement: Louis M. Staudt, M.D., Ph.D.
cDNA Library Preparation: Ling Hong/Rubin Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 9; Length 442;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATCCATTCACGTTCGGCTCGGGACAAAGTTGGAAATAAAACGTAC 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone="IMAGE:741987"
/clone_lib="Soares ovary tumor NbHOT"
/sex="Female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 248.6; DB 9;
Pred. No. 4.5e-65;
0; Mismatches 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              118 t
/db_xref="GDB:5942254"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             M.Fatima Bonaldo. "
120 c 114 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BG755003.1 GI:14065656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 56.9%;
Best Local Similarity 75.7%;
Matches 308; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA sequence.
BG755003
```

us-09-674-716b-2.rst

```
1. .880
/organism="Homo sapiens"
/db_xref="texon:9606"
/clone="InAGE:4851733"
/clone="InAGE:4851733"
/clone_Ibb="NuH_MGC_48"
/tissue_type="primary B-cells from tonsils (cell line)"
/lab_host="Bh10b (phage-resistant)"
/note="Organ: B-cells; Vector: pOTB7; Site_1: XhoI;
Site_2: EcoRI; cDNA made by oligo-dT priming.
Directionally cloned into EcoRIXAhol sites using the following 5' adaptor: GGGAGG(G). Size-selected 5500pp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of Callfornia, Berkeley) using ZBP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ó
                          þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGGGGATATTGTGATAACCCAGGATGAACTCTCCCAATCCTGTCACTTCTGGAGAATCA 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTG 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    210 AATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACC 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAATCAGTAGAGGTGAAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAG 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30 CTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTC 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
flound through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: LLCMA1695 row: a column: 04
High quality sequence stop: 845.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           270 CGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCCACAGATTTCACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             56.9%; Score 248.6; DB 12; Length 880; llarity 75.7%; Pred. No. 5.9e-65; Conservative 0; Mismatches 99; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             390 TATCCATTCACGTTCGCCTCGGGACAAAGTTGGAAATAAAACGTAC 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best_Local Similarity
Matches 308; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                      204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              185
                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

Search completed: April 26, 2003, 07:26:43 Job time : 585.185 secs

```
April 26, 2003, 04:50:01; Search time 87:9172 Seconds (without alignments) 11193.756 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 aagctttacagttactcagc......agttggaaataaaacgtacg 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /SIDS2/gcgdata/genesed/genesedn-embl/NA2001A.DAT:*/SIDS2/gcgdata/genesedy/genesegn-embl/NA2001B.DAT:*/SIDS2/gcgdata/geneseg/genesegn-embl/NA2002.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1989.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1990.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1991.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1992.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1993.DAT:*/SIDS2/gcgdata/geneseq/geneseq-geneseqn-embl/NA1994.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1994.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1995.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1996.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1997.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1998.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /SIDS2/qcqdata/geneseq/genesegn-embl/NA2000.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /SIDS2/gggdata/geneseq/geneseqn-emb1/NA1980.DAT:*/SIDS2/gggdata/geneseq/geneseqn-emb1/NA1981.DAT:*/SIDS2/gggdata/geneseqgrenseqn-emb1/NA1981.DAT:*/SIDS2/gggdata/geneseqgrenseqn-emb1/NA1983.DAT:*/SIDS2/gggdata/geneseqgrenseqgrensept.DAT:*/SIDS2/gggdata/geneseqgrenseqn-emb1/NA1984.DAT:*/SIDS2/gggdata/geneseqgrenseqn-emb1/NA1984.DAT:*/SIDS2/gggdata/geneseqgrenseqn-emb1/NA1986.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.emb1/NA1988.DAT:*/SIDS2/gggdata/geneseqgrensept.em
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1999.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4370478
GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2185239 segs, 1125999159 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Listing first 45 summaries
                                                                                                                                                                                                                                    OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IDENTITY_NUC Gapoxt 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Match 100%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N_Geneseq_101002:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-674-716B-2
437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15:
16:
17:
19:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Searched:
                                                                                                                                                                                                                                                                                                                                                 Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		æ			SUMMARIES	
Result No.	Score	Query e Match Length DB	Length	DB	. QI	Description
	437	100.0	437	21		Mouse anti-CD23 MA
7	366.4		429	12	AAQ12056	Sequence encoding
6	366.4		429	12	AAQ12012	Sequence encoding
4	317.2		340	19	AAV09791	DNA encoding the 1
5	317.2	72.6	368	19	AAV09789	DNA encoding the l
9	316		420	19	AAV09802	DNA encoding the 1
7	309.2		368	19	AAV09793	DNA encoding the l
80	293.2		464	14	AAQ33097	C242:11 MAb kappa
6	293.2		464	14	AAQ36950	C242 kappa chain v

Anti-tobacco mosai BAB.1 Light Chain MAD BAB-1 Light ch Coding strand for Coding strand for Coding strand for CTWO1 VL CDNA. Sy Anti-HMCG MAD CTWO MAD CTWO1 PHONE AND FOLLOW HUMAN PTHPP MONOCLI ANTI-HCV SER/THR PONA encoding fiber CSG Mybridoma VL d HUMAN PTHPP MONOCLI MUTINE 13110 Light TAI antibody VL CH HUMAN THEP MONOCLI BLOS SEQUE HUMAN FOR SEQUE HUMAN FARTHP MONOCLI BLOS 1941 CABIN V HUMAN COCING SEQUE HUMAN FAST 19 SBIOXP4-14 bispecif 3BIOXP4-14 bispecif
AAQ79929 AAQ08602 AAI73434 AAV71159 AAQ38878 AAZ485855 AAAZ4477 AAAZ4447 AAAZ4447 AAAZ4418 AAAI3928
$\begin{smallmatrix} 1 & 1 & 1 & 1 \\ 1 & 1 & 2 & 1 \\ 1 & 2 & 3 & 1 \\ 1 & 2 & 3 & 1 \\ 1 & 3 & 1 \\ 1 & 2 & 3 \\ 1 & 3 & 1 $
961 1119 120 130 130 130 130 130 130 130 130 130 13
00000000000000000000000000000000000000
25 25 25 25 25 25 25 25 25 25 25 25 25 2
11122111221112211221222222222222222222

CD23; FCERII; IgE receptor; monoclonal antibody; C11; mouse; monoclonal antibody; chimeric antibody; humanised antibody; complementarity determining region; CDR; autoimmune disease; inflammation; arthritis; lupus erythematosu; multiple sclerosis; Hashimoto's thyroiditis; diabetes; uveitis; dermatitis; psoriasis; urticaria; nephrotic syndrome; glomerulonephritis; psoriasis; inflammatory bowel disease; ulcerative colitis; Crohn's disease; Sjogren's syndrome; allergy; asthma; rhinitis; eczema; insulitis; graft-versus-host disease; COPD; bronchitis; diabetes; B-cell malignancy; therapy; ds. Mouse anti-CD23 MAb C11 light chain variable region cDNA. AAZ34746 standard; cDNA; 437 BP. (first entry) 15-FEB-2000 AAZ34746; RESULT 1 AAZ34746 

ALIGNMENTS

Location/Qualifiers Ø /\*tag= Mus musculus. W09958679-A1 Key

99WO-GB01434 07-MAY-1999; 18-NOV-1999

```
This DNA sequence encodes the light chain variable region (VL) of murine anti-CD23 (FCERII) monoclonal antibody Cll. The invention provides altered antibodies, such as chimeric or humanised antibodies (see AAZ34747 and AAZ34748), which comprises sufficient of the amino acid sequences of the Cll light and heavy chain complementarity determining regions (see AAY3254-59) to render them capable of binding to the CD23 type II molecule expressed on hematopoletic cells. The antibodies are used to block soluble coll formation in human therapy, for the treatment of arthritis, lupus erythematosus, Hashimoto's thyroiditis, multiple sclerosis, clubes, uveitis, dermatitis, psoriasis, urticaria, nephrotic syndrome, glomerulonephritis, inflammatory bowel disease, ulcerative colitis, crohn's disease, sjogren's syndrome, allargies, allargic asthma, intrinsic asthma, acute asthmatic exacerbation, rhinitis, crohn's disease, sjogren's syndrome, allargies, allargic sthma, intrinsic asthma, acute asthmatic exacerbation, rhinitis, particularly chronic bronchitis) or diabetes (particularly type I diabetes), and B-cell malignancies (claimed). They are also useful antimical the bilatic and between CD23 and various ligands and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cell receptor specific antibodies useful for treating e.g. arthritis, diabetes, multiple sclerosis and psoriasis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGTGCTTATGTTCTGGATCTCTGGAGTCAGTGGGGATATTGTGATAACCCCAGGATGAAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCTGTATAAGGATGGGAAGACATACTTGAATTGGTTTCTGCAGAGACCAGGACAATCTC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCAGTGGGTCAGGCACAGATTTCACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 AAGCTITACAGTIACTCAGCACACAGACCTCACCATGAGGTICTCTGTICAGTITCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 AAGCTTTACAGTTACTCAGCACACAGGACCTCACCATGAGGTTCTCTGTTCAGTTTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGTGTATTACTGTCAACAACTTGTAGAGTATCCATTCACGTTCGGCTCGGGGACAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 437;
                                                                                   Shearin J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 437 BP; 108 A; 93 C; 114 G; 122 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 437; DB 21;
100.0%; Pred. No. 3.6e-124;
iive 0; Mismatches 0;
                                                                                   Rapson NT,
                                                                                 Ellis JH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    determining the binding agents.
                                                                                                                                                                                                                   Claim 16; Fig 2; 81pp; English
                 98GB-0009839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGAAATAAAACGTACG 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 100.0
Matches 437; Conservative
                                                                                 Crowe SJ,
                                                (GLAX ) GLAXO GROUP LTD.
                                                                                                               2000-053101/04.
                                                                                                                                  P-PSDB; AAY32261
                                                                                 Bonnefoy JMP,
                 09-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

```
84 GGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTCCCAATCCTGTCACTTCTGGA 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    82 GGAGTCAGTGGGGAGATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGA 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24 CAGGACCTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGGTGCTTATGTTCTGGATCTCT 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This sequence encodes the light (kappa) chain variable (V) region of a mouse monoclonal antibody (MAb), 2E12, specific for an HIV-1 viral antigen. It is used in the construction of a chimeric MAD comprising heavy and light chains having murine V regions and human c regions. The chimeric MADs are more effective than murine MAD above an increased compatibility in humans. The heavy and light chain V-regions are joined by manipulating their respective joining (J) regions, to generate restriction enzyme recognition sites. The chimeric MADs can be used as immunoconjugates, in association with e.g. toxins for HIV treatment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence encoding light (kappa) chain variable region of murine 2E12 immunoglobulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             - used to detect, kill and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 12; Length 429;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                             Robinson RR;
                                                                                                                                                                                                                           /*tag= a
/product= mouse MAb 2E12 L(kappa)-chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        See also AAQ12057-63.
Sequence 429 BP; 103 A; 92 C; 120 G; 114 T; 0 other;
                                                                                                                                               Chimeric antibodies; immunoconjugates; HIV; AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 366.4; DB 12
Pred. No. 1.7e-102;
                                                                                                                                                                                                                                                                                                                                                                                                                          Ghosh-Dastidar P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                      variable region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New chimeric mouse-human antibodies remove HIV-1 antigen from sample
                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; fig 1; 107pp; English.
                          BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            83.8%;
93.6%;
                          AAQ12056 standard; DNA; 429
                                                                                                                                                                                                                                                                                                                                 90WO-US06615
                                                                                                                                                                                                                                                                                                                                                         89US-0433730
                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                   (XOMA-) XOMA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 382; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                           Horwitz AH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1991-178044/24.
P-PSDB; AAR12354.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                             15-AUG-1991
                                                                                                                                                                        Mus musculus
                                                                                                                                                                                                                                                                                                                                 13-NOV-1990;
                                                                                                                                                                                                                                                                                                                                                          13-NOV-1989;
                                                                                                                                                                                                                                                                             WO9107493-A.
                                                                                                                                                                                                                                                                                                        30-MAY-1991.
                                                                                                                                                                                                                                                                                                                                                                                                                          Better MD,
                                                   AAQ12056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
RESULT 2
AAQ12056
                                                                                                                                                                                                 Key
                                                                                          XXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ρp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         óλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
```

ö

323

381

Q

QQ δλ g δy g

ò

```
The present sequence encodes the light chain of a catalytic antibody which is capable of degrading cocaine. A series of cocaine transition state analogues (TSAs) were prepared and used to immunise mice for production of hybridomas. Catalytic antibodies were identified by their capacity to release 3H-benzoic acid from 3H-phenyl cocaine. The antibodies reduce the concentration of cocaine in a subject, and are used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Variable domain; lambda light chain; catalytic antibody; degradation; cocaine; cocaine transition state analogue; TSA; benzolc acid; phenyl cocaine; immunogenic conjugate; reduction; cocaine; treatment; overdose; addiction; ss.
                                                                                                   324 ACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTT 383
82 GGAGTCAGTGGGGAGATTGTGATAACCCAGGATGAACTCTCCCAATCCTGTCACTTCTGGA 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New catalytic antibodies able to decompose cocaine, single-chain analogues - used to treat cocaine overdose and addiction, required in far smaller doses than antibodies that antagonise cocaine by
                                                                                                                                                                                                                                                             144 GAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACA
                                                                                                                                                                       264 TCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGAGTGGGTCAGGCACAGATTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA encoding the light chain of the catalytic antibody 3B9.
                                                                                                                                                                                                                                                                                                              384 GTAGAGTATCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAA 431
                                                                                                                                                                                                                                                                                                                              /*tag= a
/note= "no stop codon given"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Fig 17; 147pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                     BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (UYCO ) UNIV COLUMBIA NEW YORK.
                                                                                                                                                                                                                                                                                                                                                                                                                                 AAV09791 standard; cDNA; 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97WO-US10965.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96US-0672345.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1998-077166/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P-PSDB; AAW39801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             simply binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9749800-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Landry DW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV09791;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Key
                                                                                                                                                                                                                                                                                                                                                                                                                     AAV09791
                                                                                                                                                                                                                                                                                                                                                                                                                                     Dp
                                                                  g
                                                                                                                                   QQ
                                                                                                                                                                     Qγ
                                                                                                                                                                                                       ga
                                                                                                                                                                                                                                          δy
                                                                                                                                                                                                                                                                                                              ōλ
                                                                                                                                                                                                                                                                                                                                             g
                                Óγ
                                                                                                    Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84 GGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGA 143
                                                                                      ACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTT 383
                                                                                                                                                          22 CAAGTTCTCAGAATGAGGTGCTCTCTTCAGTTCCTGGGGGTGCTTATGTTCTTGAATCTT 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24 CAGGACCTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCT 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New chimeric mouse human antibodies - used in treatment, diagnosis and prophylaxis of HIV infections.
   TACTTGAATTGGTTTCTGCAGAGACCAGGACAATCTCCCTCAGCTCCTGATGTATTTGATG
                                                                    264 TCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCGAGTGGGGTCAGGCACAGATTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human Abs against HIV-1 comprising human Ig constant regions and murine variable regions. These novel sequence are useful in treatment, diagnosis and prophylaxis of HIV infections, and may by produced by a bacterial, yeast or mammalian expression system.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The mouse VL gene product may be used to produce chimeric mouse-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tch 83.8%; Score 366.4; DB 12; Length 429; al Similarity 93.6%; Pred. No. 1.7e-102; 382; Conservative 0; Mismatches 26; Indels 0;
                                                                                                                                                                                                                             382 GTAGAGTATCCGTACACATTCGGAGGGGGGACCAAGCTGGAAATAAAA 429
                                                                                                                                                                                                         GTAGAGTATCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAA 431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Robinson RR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP; 103 A; 92 C; 120 G; 114 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence encoding mouse MAb 2E12 L chain V region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ghosh-Dastidar P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
34..429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure, Fig 1; 108pp; English.
                                                                                                                                                                                                                                                                                                                              BP.
                                                                                                                                                                                                                                                                                                                              AAQ12012 standard; DNA; 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               90WO-US06627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               89US-0433703
                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ๙
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Horwitz AH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1991-178106/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HIV-1; chimera; ds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (XOMA-) XOMA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P-PSDB; AAR12232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-NOV-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-NOV-1990;
                                                                                                                                                                                                                                                                                                                                                                                                   19-AUG-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9107494-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-MAY-1991.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Better MD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                AAQ12012;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loca
Matches
                                                                                                                                                                         322
                                                                                                                                                                                                         384
     204
                                                                                                                                       324
                                                                                                                                                                                                                                                                                              RESULT 3
AAQ12012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Key
```

g ò

δy

```
Mus sp
                                                                                                                                                                                                                       216
                                                                                                                                                                                                                                                                               336 /
                                                                                                                                                              96
                                                                                                                                                                                                                                                                                                           396
                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Key
                                                                                                                                                                                                                                                                                                                                                      AAV09802
                                                                                                                                                                                                                                                                                                                                                RESULT
   δ
                                                                                                                                                                           g
                                                                                                                                                                                          ŏ
                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                               δλ
                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                           δy
                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                     ;
0
particularly for the treatment of an overdose. They are also used for treating addiction (by reducing the in vivo concentration that can be
                                                                                                                                  275
                                                                                                                                       335
                                                                                                                                                                                                Gaps
                                                                       GATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                    ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215
                                                                                                                   120
                                                                                                                                                                                        AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                              Variable domain; lambda light chain; catalytic antibody; degradation; cocaine; cocaine transition state analogue; TSA; benzoic acid; phenyl cocaine; immunogenic conjugate; reduction; cocaine; treatment; overdose; addiction; ss.
                                                                                       9
                                                                               TTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCGTGCA
                                                                                                                                                            TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC
                                                                                                                                                                    New catalytic antibodies able to decompose cocaine, single-chain
                                                           ;
0
                                            Length 340;
                                                                                                                                                                                                                                                                                                                encoding the light chain of the catalytic antibody 2A10.
                                           DB 19;
                                                          13;
                             88 G; 93 T; 1 other;
                                                                                                                                                                                                                          TTCACGTTCGGCTCGGGGACAAGTTGGAAATAAAACG 433
                                                  Pred. No. 2e-87;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                        codon given"
                                           Score 317.2;
                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                       stop
                                                                                                                                                                                                                                                                       ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COLUMBIA NEW YORK.
                            86 A; 72 C;
                                          72.6%;
ilarity 96.2%;
Conservative
                                                                                                                                                                                                                                                                     AAV09789 standard; cDNA; 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                96US-0672345.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  97WO-US10965.
                                                                                                                                                                                                                                                                                                                                                                                                 a no
                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                               /*tag=
/note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1998-077166/07.
                                                 Similarity
                           Sequence 340 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P-PSDB; AAW39882
                                                                                                                                                                                                                                                                                                                                                                                                                     WO9749800-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYCO ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-JUN-1997;
                                                  Best Local Simmatches 325;
                                                                                                                                                                                                                                                                                                  16-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                   31-DEC-1997
               achieved).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Landry DW;
                                          Query Match
                                                                                                                                                                                                                                                                                    AAV09789;
                                                                                                                                                                                                                                                                                                                                                                   Mus sp
                                                                                                                                                           276
                                                                                     П
                                                                       96
                                                                                                   156
                                                                                                                 61
                                                                                                                                216
                                                                                                                                                                                        336
                                                                                                                                                                                                      241
                                                                                                                                                                                                                    396
                                                                                                                                                                                                                                                                                                                 DNA
                                                                                                                                                                                                                                                                                                                                                                                 Key
                                                                                                                                                                                                                                                               AAV09789
                                                                                                                                                                                                                                                         RESULT
SSSSS
                                                                                                                g
                                                                        ð
                                                                                   QQ
                                                                                                   ò
                                                                                                                                            g
                                                                                                                                                           ò
                                                                                                                                                                         a
                                                                                                                                                                                        ò
                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                 음
                                                                                                                               ò
                                                                                                                                                                                                                    ò
```

```
ô
                                                                                                                                                                            The present sequence encodes the light chain of a catalytic antibody which is capable of degrading cocaine. A series of cocaine transition state analogues (TSAS) were prepared and used to immunise mice for production of hybridomas. Catalytic antibodies were identified by their capacity to release 3H-benzoic acid from 3H-phenyl cocaine. The antibodies reduce the concentration of cocaine in a subject, and are used particularly for the treatment of an overdose. They are also used for the treatment of an overdose. They are also used for the treatment of an overdose. They are also used for the treatment of an overdose. They are also used for the treatment of an overdose. They are also used for the treatment of an overdose. They are also used for the treatment of an overdose. They are also used for the treatment of an overdose.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 276 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTAGAGTGAAGGCTGAGGATGTGGGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Variable domain; lambda light chain; catalytic antibody; degradation; cocaine; cocaine transition state analogue; TSA; benzoic acid; phenyl cocaine; immunogenic conjugate; reduction; cocaine; treatment; overdose; addiction; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \ensuremath{\mathsf{les}} - used to treat cocaine overdose and addiction, required smaller doses than antibodies that antagonise cocaine by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCGTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 19; Length 368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA encoding the light chain of the catalytic antibody 12H1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 368 BP; 95 A; 81 C; 94 G; 98 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 317.2; DB 19;
Pred. No. 2.1e-87;
0; Mismatches 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCACGTTCGGCTCGGGGACAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /*tag= a
/note= "no stop codon given"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers 53..391
                                                                                                                        Disclosure; Fig 21; 147pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               72.6%;
96.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV09802 standard; cDNA; 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 96.2
Matches 325; Conservative
   analogues - used
                                                                 simply binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9749800-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                          achieved)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAV09802;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
```

```
Mus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 8
AAQ33097
   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ρp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                nseq
                                                                                                                                                                                                                                                                                         The present sequence encodes the light chain of a catalytic antibody which is capable of degrading occaine. A series of cocaine transition state analogues (TSAs) were prepared and used to immunise mice for production of hybridomas. Catalytic antibodies were identified by their capacity to release 3H-benzoic acid from 3H-phenyl cocaine. The antibodies reduce the concentration of cocaine in a subject, and are use particularly for the treatment of an overdose. They are also used for treating addiction (by reducing the in vivo concentration that can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Variable domain; lambda light chain; catalytic antibody; degradation; cocaine; occaine transition state analogue; TSA; benzolc acid; phenyl cocaine; immunogenic conjugate; reduction; cocaine; treatment; overdose; addiction; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94 GGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTT 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            154 CCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATT 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           291 TCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACACTTTGTAGACTATC 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                               New catalytic antibodies able to decompose cocaine, single-chain analogues - used to treat cocaine overdose and addiction, required in far smaller doses than antibodies that antagonise cocaine by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            214 GGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATCAGGAGTCTCAGACCGGTTTAGTGGCAGGGTCAGGCACAGATTTCACCCTGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 420;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA encoding the light chain of the catalytic antibody 6A12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 420 BP; 98 A; 95 C; 115 G; 108 T; 4 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          394 CATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            351 CATTCACGTTCGGCTCGGGGACAAAGTTGGAGATAAAAACG 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 316; DB 19;
Pred. No. 5.1e-87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                               Disclosure; Fig 23; 147pp; English.
                                                                 (UYCO ) UNIV COLUMBIA NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             72.3%;
95.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAV09793 standard; cDNA; 368
97WO-US10965
                              96US-0672345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             325; Conservative
                                                                                                                                WPI; 1998-077166/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
                                                                                                                                                P-PSDB; AAW39803
                                                                                                                                                                                                                               simply binding
 25-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-JUN-1998
                                                                                                 .
M
                                                                                                                                                                                                                                                                                                                                                                                                                                 achieved)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAV09793;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                 Landry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV09793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
```

q

ò g οy g δ g δ g δy

ò

Dp

```
The present sequence encodes the light chain of a catalytic antibody which is capable of degrading occaine. A series of cocaine transition state analogues (TSAs) were prepared and used to immunise mice for production of hybridomas. Catalytic antibodies were identified by their capacity to release 3H-benzoic acid from 3H-phenyl cocaine. The antibodies reduce the concentration of cocaine in a subject, and are use particularly for the treatment of an overdose. They are also used for treating addiction (by reducing the in vivo concentration that can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 ATCTCCTGCAGGTCTAGTAGGAGTCTCCTATATAGGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       216 TITCIGCAGAGCCAGGACCAATCTCCTCAGCTCCTGATGTATTTGATGTCCCACCCGTGCA 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   276 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                336 AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New catalytic antibodies able to decompose cocaine, single-chain analogues - used to treat cocaine overdose and addiction, reguired in far smaller doses than antibodies that antagonise cocaine by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GATATGGTGATGACGCAAGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 309.2; DB 19;
Pred. No. 6e-85;
0; Mismatches 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 368 BP; 95 A; 80 C; 93 G; 100 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               396 ITCACGTTCGGCTCGGGGACAAGTTGGAAATAAAACG 433
                                                                                  stop codon given"
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Fig 19; 147pp; English.
                                                                                                                                                                                                                                                                                                                                                                  (UYCO ) UNIV COLUMBIA NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70.8%;
ilarity 94.7%;
Conservative
                                                          a
no
                                                                                                                                                                                                                                                   97WO-US10965
                                                                                                                                                                                                                                                                                                          96US-0672345
                                                                                  /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4PI; 1998-077166/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P-PSDB; AAW39886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      simply binding
                                                                                                                                         W09749800-A1
                                                                                                                                                                                                                                                   25-JUN-1997;
                                                                                                                                                                                                                                                                                                          25-JUN-1996;
                                                                                                                                                                                              31-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      320;
                                                                                                                                                                                                                                                                                                                                                                                                                          Landry DW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
```

nseq

```
324 ACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGGGGTGTATTACTGTCAACAACTT 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C242:II; kappa, variable; region; complementarity determining region; hybridoma; CDR; grafting; cytotoxic; conjugate; gastrointestinal; chain; tumour; ss.
                                                                                                                                                                                                             384 GTAGAGTATCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                 390 CTAGAGTATCCGTTCACGTTCGGTCCTGGGACCAAGCTGGAGCTGAAACG 439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Immuno-toxin conjugates of e.g. C242 antibody and ricin A treating gastrointestinal tumours, e.g. colorectal tumours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lindholm L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    C242 kappa chain variable region coding sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lind P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
42..464
/*tag=_a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Holmgren J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   264..284
/*tag= d
/*tag= d
//abel= CDR2
/note= "Claim 9"
381..407
/tag= e
/label= CDR3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag= c
/label= CDR1
/note= "Claim 9"
                                                                                                                                                                                                                                                                                                                                             BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ICIL ) IMPERIAL CHEM IND PLC. (KABI ) KABI PHARMACIA AB.
                                                                                                                                                                                                                                                                                                                                         AAQ36950 standard; cDNA; 464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag= a
102..353
/*tag= b
/note= "vk"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92AU-0019430.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            91GB-0014399.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /*tag= f
/note= "Ck"
                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 171..218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        354..464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fitton JE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1993-059205/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P-PSDB; AAR32541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-JUL-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-JUL-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                 10-JUN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AU9219430-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-JAN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Blakey DC,
Wright AF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
                                                                                                                                                                                                                                                                                                                                                                              AAQ36950;
                                                                                                                                                                                                                                                                                                       RESULT 9
AAQ36950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Key
                                                                                               g
                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ó;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The sequence given encodes the kappa chain variable region of the . monoclonal antibody (MAD), C242:II. C242:II is a monoclonal murine AD of 1gG class produced when culturing in an appropriate medium a hybridoma cell line obtained by fusing spleen cells from a mouse, which has been immunised with a human colonic adenocarcinoma cell line, with the murine myeloma cell line Sp2/0. C242:II when bound to a cell surface antigen is capable of being endocytosed or internalised into cells. See also AAR30448-53.
                                                                                                                                                 antibody; C242:II; murine; IgG; colonic; adenocarcinoma; myeloma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84 GGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGA 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  204 TACTIGAATIGGITICIGCAGAGACCAGGACAAICICCICAGCICCIGAIGIAITIGAIG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24 CAGGACCTCACCATGAGGTTCTCTGTTCTGGGGGGTGCTTATGTTCTGGATCTCT 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            67.1%; Score 293.2; DB 14; Length 464; 82.2%; Pred. No. 5.4e-80; Ive 0; Mismatches 73; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Monoclonal antibody reacting with CA-242 antigen - obtd. by culturing hybridoma cell line C242:11 or mutants, useful for diagnosis and therapy of pancreatic or colorectal cancers
                                                                                                                                                                                                                                                                                                                                    /*tag= b
/note= "Kappa variable region, VK"
/442..46
/*tag= c
/note= "Start of Kappa constant region, CK"
                                                                                                          C242:11 MAb kappa chain variable region coding sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 464 BP; 98 A; 109 C; 130 G; 127 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    73;
                                                                                                                                               Kappa; chain; heavy; MAb; monoclonal
hybridoma; cell line; spleen; human;
Sp2/0; antigen; endocytosis; ss.
                                                                                                                                                                                                                                                Location/Qualifiers
42..464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lindholm L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Fig 3; 15pp; English.
   BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92EP-0850166.
 AAQ33097 standard; DNA; 464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             91SE-0002074
                                                                         (first entry)
                                                                                                                                                                                                                                                                                                     Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (KABI ) KABI PHARMACIA AB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 82.2
Matches 337; Conservative
                                                                                                                                                                                                                                                                                                                    102.441
                                                                                                                                                                                                                                                                                               /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Holmgren J, Lind P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1993-002345/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P-PSDB; AAR30454.
                                                                       06-MAY-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-JUL-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-JUL-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-JAN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                            EP521842-A.
                                                                                                                                                                                                                         Synthetic
                                      AAQ33097;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                    misc_RNA
                                                                                                                                                                                                                                                                                                                                                                         misc_RNA
A NAME OF STREET OF STREET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

- for

XX CCCCCXX BXX

```
84 GGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGA 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     144 GAATCAGTITCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACA 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACTIGAATIGGITTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGAIGTAITTGATG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 264 TCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGGTCAGGCACAGATTTC 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            262 TCCAACCCTGCCTCAGGTAGTCCAGACAGGTTCAGTGGCAGTGGGTCAGGAACTGCTTTC 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24 CAGGACCTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGGGGTGTGTATTACTGTCAACAACTT
                                                                                                                                        Transformed plant producing animal-derived anti-virus antibody esp. tobacco plants producing anti-tobacco mosaic virus monoclonal antibody
                                                                                                                                                                                                                                                 AAQ79929 and AAQ79930 encode AAR66757 and AAR66758, the light chains of an animal derived anti-tobacco mosalc virus (TMV) monoclonal antibody. The CDNAs were incorporated into a Ti plasmid vector, which was incorporated into A. tumefaciens. The resultent plant expression vector was used to transform tobacco plants, making them TMV resistant, the plants could also be biofarmed for the produ. of anti-virus antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Monoclonal antibody, chimera; light; heavy; chain; constant; variable; antigen; diagnosis; cancer; tumour; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               384 GTAGAGTATCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 286.8; DB 16; Length
Pred. No. 6.5e-78;
0; Mismatches 77; Indels
                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 961 BP; 243 A; 255 C; 213 G; 250 T; 0 other;
                                                                                                                                                                                                               Example 2; Pages 13-14; 26pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B38.1 Light Chain V Region (mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                   65.6%;
81.2%;
93JP-0131208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA; 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                (NISB ) JAPAN TOBACCO INC. (KURS ) KURARAY CO LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                       WPI; 1995-040220/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAQ08602 standard;
                                                                                                        P-PSDB; AAR66757
07-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       333;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAQ08602;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 11
AAQ08602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Key
QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            őλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QΫ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                           This sequence encodes the C242:II kappa chain variable region derived from the C242:II hybridoma. The complementarity determining regions (CDRs) from this sequence may be used in CDR grafting in the production of a cytocoxic conjugate which is targetted to gastrointestinal tumours. These conjugates are useful in reducing tumour size.
                                                                                                                                                                                                                                                                                                                                                             90 GGAGCCATTGGGGATATTGTGATGACTCAGGCTGCACCCTCTGTACTGTACTCCTGGA 149
                                                                                                                                                                                                                                                                                                                                                                                                           144 GAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACA 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGA 143
                                                                                                                                                                                                                                                                                                                                                                                                                               TCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGGTCAGGCACAGATTTC 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            204 TACTTGAATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCCTGGAAATCAGTAGAGGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTT 383
                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                  30 CAAGITCICAGAAIGAGGIGCCIAGCIGAGIICCIGGGGCIGCIIGIGCICIGGAICCCI 89
                                                                                                                                                                                                                                                                24 CAGGACCTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGGTGCTTATGTTCTGGATCTCT 83
                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                        Score 293.2; DB 14; Length 464; Pred. No. 5.4e-80; 0; Mismatches 73; Indels 0:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTAGAGTATCCATTCACGTTCGGCTCGGGGACAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     390 CTAGAGTATCGGTTCACGTTCGGTCCTGGGACCAAGCTGGAGCTGAAACG 439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Anti-tobacco mosaic virus monoclonal Ab light chain cDNA.
                                                                                                                                                         Sequence 464 BP; 98 A; 109 C; 130 G; 127 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             co mosaic virus; TMV; monoclonal antibody; chain; virus-resistant plants; biofarming;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers 34..753 /*tag= a 34..93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   to mRNA; 961
         Disclosure; Fig 18; 120pp; English.
                                                                                                                                                                                            67.1%;
82.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93JP-0131208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                           Best_Local Similarity 82.2
Matches 337; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /*tag= 1
94..750
/*tag= 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAQ79929 standard; cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JP06319396-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-NOV-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAQ79929;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tobacco
```

 $_{
m light}$ 

Key

ö

Gaps 83 81

; 0

Length 961;

84

ò

q

g

οŻ

ò g 264

ŏ

q

g

οy

324 330

å

g

RESULT 10

g

ò

and heavy

```
P-PSDB; AAW06209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-JUN-1989;
21-JUL-1989;
27-DEC-1994;
                                                                                                                                        12-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-SEP-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       US5576184-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-MAY-1991,
06-SEP-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-SEP-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-SEP-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-OCT-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Better MD,
                                                                                                AAT43434;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                   Mus sp.
                      RESULT 12
                                       AAT43434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δλ
                                                                                                  NAME OF COLOR OF COLO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shown is the nucleotide sequence from the end of the oligo-dC tail to the JkJ-Ck junction. The sequence is used in the prodn. of a chimeric antibody mol. comprising two light chains and two heavy chains, each having a constant region (human) and a variable region (murine) having specificity to an antigen bound by murine monoclonal antibody (MAD) B38.1. The chimeric antibodies can be used for any purpose for which the original murine MADs can be used, with the advantage that they are more compatible with the human body. They are esp. used for the diagnosis and treatment of cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    84 GGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTCCCAATCCTGTCACTTCTGGA 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          144 GAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACA 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTC 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTT 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24 CAGGACCTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGGTGCTTATGTTCTGGATCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28 CAAGTICGCAGAAATGAGGTICTCTGTCTCAGCTICTGGGGCTGCTTGTGCTCTGGATCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TACTTGAATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TATTTGTATTGGTATCTGCAGAAGCCAGGCCAGTCTCCTCAGCTCCTGATTTATCAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chimeric mouse-human antibodies – prepd. using genes coding for constant human region murine variable region, esp. to 3 tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63.4%; Score 277.2; DB 11; Length 441; 79.8%; Pred. No. 4.3e-75; Live 0; Mismatches 83; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTAGAGTATCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chang CP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 441 BP; 101 A; 106 C; 114 G; 120 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                            Lei S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 13; Page 123 + Fig 7; 173pp; English.
                                                                                                                                                                                                                                                                                                                                                          Robinson RR,
                                                                                                                                                                                           88US-0241744.
88US-0243739.
88US-0253002.
89US-0367641.
                                                                                                                                                                                                                                                                          89US-0382768
                                                                                                                                                                                                                                                                                                                 (ITGE-) INT GENETIC ENG INC
                                                                                                                                        89WO-US03852
                                                                                                                                                                             88US-0240624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                          Horwitz AH,
40..441
/*tag=
                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1990-115825/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 327; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                  P-PSDB; AAR09420
                                                                                                                                                                                                                13-SEP-1988;
04-OCT-1988;
19-JUN-1989;
21-JUL-1989;
                                                                                                                                      06-SEP-1989;
                                                         WO9002569-A
                                                                                                                                                                           06-SEP-1988
08-SEP-1988
                                                                                                22-MAR-1990
                                                                                                                                                                                                                                                                                                                                                        Better MD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           324
  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

```
A cDNA clone (AAT43434) codes for the light chain variable region (AAW6209) of mouse monoclonal antibody (Mab) B38-1, and extends from the end of the oligo-dC tail to the J Kappal-C kappa junction. It mouse C kappa region probe. MAD B38-1 (19G1) binds to an antigen that is expressed on the surface of human lung, breast, colon and ovary carcinomas, but not on normal adult tissues. Light chain and heavy chain variable region (see also AA43435-43) sequences can be used with human constant region sequences to express mouse-human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        chimeric antibodies in transformed host cells. The antibodies have specificity to human tumour antigens and can be used for the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mouse-human antibodies - recognise a human tumour antigen, the treatment and diagnosis of human cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 18; Length 441;
                                                                                                                                                                                                                               Chimeric antibody; monoclonal antibody; B38.1; antibody engineering; tumnur; antigon; breast carcinoma; lung carcinoma; colon carcinoma; ovary carcinoma; cancer; diagnosis; therapy; light chain; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 277.2; DB 18; Length
Pred. No. 4.3e-75;
0; Mismatches 83; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Robinson RR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 441 BP; 101 A; 106 C; 114 G; 120 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /*tag= a
/product= B38.1 light chain V region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Horwitz AH, Lei S,
                                                                                                                                                                           B38-1 light chain variable region cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              treatment and diagnosis of human cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 3; Fig 7; 102pp; English.
AAT43434 standard; cDNA; 441 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chimeric mouse-human antibodies used for the treatment and diagr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                63.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88US-0240624.
88US-0241744.
88US-0243739.
88US-0253002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         89US-0367641.
89US-0382768.
94US-0364001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88US-0240624
                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chang CP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1997-011249/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
Matches 327; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (XOMA ) XOMA CORP.
```

σ

; 0

```
31-MAR-1993
 g
                                                                                                                                                                 δ
                                                                                                                                                                               q
                                                                                                                                                                                                            g
                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                      Dp
                                                                                                                                                                                                                                                                                      δλ
                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                    δŏ
                                                                                                                                                                                                                                                                                                                                 Db
                                                                                                                                                                                                                                                                                                                                                                                δŽ
                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                         QΥ
       88 GGAICCACTGCAGATATIGTGATGACGCAGGCTGCATTCTCCAATCCAGTCACTCTTGGA 147
                                                                   GGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTCCCAATCCTGTCACTTCTGGA 143
                              144 GAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACA 203
                                     TACTTGAATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATG 263
                                                                                        TCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGGTCAGGCACAGATTTC 323
                                                                                                                             Light chain variable region; murine antibody B38.1; antibody ING-1; chimeric immunoglobulin; human tumour antigen; chimeric antibody; treatment; human cancer; ss.
                                                                                                                                                                                                                                                                                                                          /*tag= a
/note= "partial CDS, no termination codon given"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chimeric antibody specific for human tumour antigen - useful immunoassay, imaging or antitumour agent
                                                                                                                                                          388 CIAGAACITCCTCGGACGTTCGGTGGAGGCACCCAAGCTGGAAATCAAACG 437
                                                                                                                                                                                                                                                 Coding strand for mouse B38.1 light chain variable region,
                                                                                                                                                  GTAGAGTATCCATTCACGTTCGGCTCGGGGACAAGTTGGAAATAAAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Robinson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Lei
                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Horwitz AH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 3; Fig 7; 92pp; English.
                                                                                                                                                                                                      BP
                                                                                                                                                                                                                                                                                                                                                                                                   8805-0240624.
8805-024174.
8805-0243739.
8905-0357641.
8905-0367641.
8905-0367641.
                                                                                                                                                                                                    AAV71152 standard; DNA; 441
                                                                                                                                                                                                                                                                                                                                                                              95US-0466034
                                                                                                                                                                                                                                                                                                                                                                                             39WO-US03852
                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                    40..441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Better MD, Chang CP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1999-044574/04.
P-PSDB; AAW85056.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (XOMA ) XOMA CORP.
                                                                                                                                                                                                                                                                                                                                                                                           06-SEP-1989;
06-SEP-1988;
08-SEP-1988;
13-SEP-1988;
04-OCT-1988;
                                                                                                                                                                                                                                  16-APR-1999
                                                                                                                                                                                                                                                                                                                                                                              06-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                US5843685-A
                                                                                                                                                                                                                                                                                                                                                                                                                                 19-JUN-1989
                                                                                                                                                                                                                                                                                                                                                                01-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-DEC-1994
                                                                                                                                                                                                                    AAV71152;
                                                                                                                                                                                                                                                                                               Mus sp.
                                                                                                                     324
 84
                                                          204
                                                                                       264
                                                                                                      268
                                                                                                                                                  384
                                                                                                                                                                                       RESULT 13
                                                                                                                                                                                                                                                                                                            Key
                                                                                                                                                                                                      à
             g
                              οy
                                           qq
                                                          ò
                                                                       qq
                                                                                       ò
                                                                                                    С
                                                                                                                    Ω
                                                                                                                                  qq
                                                                                                                                                  ò
                                                                                                                                                               g
```

```
263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Heavy; light; chain; variable; domain; CTMO1; PCR; primer; carcinoma; immunoglobulin; murine; monoclonal; antibody; MAb; IgG-kappa; ovary; humanised; diagnosis; therapy; breast; uterus; lung; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGTCAGTGGGGATATTGTGATAACCCCAGGATGAACTCTCCAATCCTGTCACTTCTGGA 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   144 GAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACA 203
                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                83
                                                                                                                                                                                                                                                                                                                                                                                                      87
The present sequence encodes the light chain variable region of murine antibody B38.1. The sequence was used to create chimeric mouse-human immunogalboulins which recognise the human tumour antigen bound by antibody INN-1 (produced by hybridoma cell line ATCC HB 9812). The chimeric antibodies also have an antigen-binding site that competitively inhibits the binding of antibody innocent cytolysis of target cells or antibody-dependent calular cytotoxicity to target cells. The chimeric antibodies can be used for therapeutic purposes in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24 CAGGACCTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGGTGCTTATGTTCTGGATCTCT
                                                                                                                                                                                                                                                                                                                                                                                      148 ACATCAGGTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTACATAGTAATGGCATCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TACTIGAATIGGITICIGCAGAGACCAGGACAATCICCTCAGCTCCTGATGIATITGAIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGGGGTGTGTATTACTGTCAACATT
                                                                                                                                                                                                                                                                                                                      ;
                                                                                                                                                                                                                                                                                 441;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            384 GTAGAGTATCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                          Score 277.2; DB 20; Length
Pred. No. 4.3e-75;
0; Mismatches 83; Indels
                                                                                                                                                                                                                                     Sequence 441 BP; 101 A; 106 C; 114 G; 120 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAQ38878 standard; cDNA; 399
                                                                                                                                                                                                                                                                             Ouery Match 63.4%;
Best Local Similarity 79.8%;
Matches 327; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                               reatment of human cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /*tag= 61..399
/*tag= 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . . 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTMO1 VL CDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Key
sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EP534742-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAQ38878
                                                                                                                                                                                                                                                                                                                                                                                                      28
                                                                                                                                                                                                                                                                                                                                                                                                                                                84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAQ38878
```

aa:Gly) aa:Gly) aa:Phe) aa:Gly) aa:Tyr)

```
GATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        216 TTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTGCA 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA encoding composite heavy and light chains of humanised antibody - specific for human milk fat globule, useful in cancer diagnosis on therapy
    Humanised antibody; CDR-grafted antibody; chimeric antibody; CTMO1; complementarity determining region; human milk fat globule; HMFG; monoclonal antibody; MAD: mones; cancer; breast cancer; ovary carcinoma; lung cancer; uterus cancer; diagnosis; therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This cDNA sequence comprises a coding sequence for the light chain variable region VL (see AAW29751) of murine anti-human milk fat globule (HMFG) monoclonal antibody CTMO1. It was isolated from CTMO1 hybridoma cDNA using a light chain constant region probe. CTMO1 VL and VH (see AAT85854) nucleic acids can be used in the construction of recombinant chimeric humanised antibodies and recombinant CDR-grafted humanised antibodies. These may be conjugated with labels or drugs (especially methyltrithio antitumour agents) and used for diagnosis or therapy of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36 ATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTCAGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 276.4; DB 18; Length 399;
Pred. No. 7.3e-75;
0; Mismatches 76; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           carcinomas, e.g. of the ovary, breast, uterus and lung
                                                                                                                                                                                                                                     /transl_except= (pos:16..18, aa:Gly) 61..399 /*tag= b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 399 BP; 80 A; 95 C; 111 G; 113 T; 0 other;
                                                                                                                                                                                                                                                                                                                  (pos:109..111, a (pos:316..318, a (pos:322..324, a (pos:352..354, a (pos:354..366, a
                                                                                                                                                                                                                                                                                                                                                                                   /transl_except= (pos:352..354, /transl_except= (pos:364..366, /transl_except= (pos:388..390,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hamann PR, Hinman LM,
                                                                                                                                                                          Location/Qualifiers
1..60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 4; Page 19-20; 53pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LTD.
                                                                                                                                                                                                                                                                                                               /transl_except= (
/transl_except= (
/transl_except= (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (CLLT ) CELLTECH THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  63.2%;
80.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92EP-0308680.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             91GB-0020467
                                                                                                                                                                                                                                Ф
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Owens RJ;
                                                                                                                                                                                                                              /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Baker TS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1997-334902/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P-PSDB; AAW29751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Menendez AT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-SEP-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-SEP-1991;
                                                                                                                                         musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EP781845-A2
                                                                                                                                                                                                      sig_peptide
                                                                                                                                                                                                                                                                        mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-JUL-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              322:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Adair JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                         Mus
    NAME OF THE PROPERTY OF THE PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                 The sequences given in AAQ38877-78 encodes the heavy and light chain variable domains of CTMO1 respectively. These sequences were isolated by PCR using the primar sequences given in AAQ38879-80. Examination of the derived amino acid sequences from these sequences revealed considerable homology with other characterised immunoglobulin genes. The murine monoclonal antibody (MAD), CTMO1, was confirmed to be an IGG-kappa antibody. CTMO1 was used in the production of a humanised antibody for in vivo diagnosis and therapy of carcinomas of ovary,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTAGAGTGAAGGCTGAGGATGTGGGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36 ATGAGGTTCTCTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTCAGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 ATGAGGTGCCTAGGTGGTTCCTGGGGCTGCTTGTGCTGGATCCCTGGAGCCATTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 GATATTGTGAFGACTCAGGCTGCACCCTCTGTTCCTGTCACTCCTGGAGAGTCATTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 ATTTCCTGCAGGTCTAGTAAGAGTCTCCTTCATAGTAATGGCGACACTTTCTTGTATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    216 TTTCTGCAGAGCCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCGTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 TTCCTGCAGAGGCCAGGCCAGTCTCCTCATATATCGGATGTCCAACCTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                          Anti-human milk fat globule humanised antibodies - useful as conjugate for in=vivo diagnosis and therapy of e.g. ovarian or breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 14; Length 399;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                       Lyons AH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Anti-HMFG MAb CTWO1 light chain variable region cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 399 BP; 80 A; 95 C; 111 G; 113 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63.2%; Score 276.4; DB 14;
80.9%; Pred. No. 7.3e-75;
live 0; Mismatches 76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCACGTTCGGCTCGGGGACAAGTTGGAAATAAAACG 433
                                                                                                                                     Hinman LM,
                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 19-20; 57pp; English.
                                                                                                                                     Hamann PR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAT85855 standard; cDNA; 399
                                            91GB-0020467.
  92EP-0308680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 63.2
Best Local Similarity 80.9
Matches 322; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     breast, uterus and lung
                                                                                                                                                       Menendez AT, Owens RJ;
                                                                                        (CLLT ) CELLTECH LTD.
                                                                                                                                     Baker TS,
                                                                                                                                                                                                    WPI; 1993-102837/13.
                                                                                                                                                                                                                           P-PSDB; AAR33951
24-SEP-1992;
                                            26-SEP-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-JAN-1998
                                                                                                                                     Adair JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAT85855;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAT85855
SEXEXEX BX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
```

or

Lyons AH;

; 0

ö

215

		·				
		•				
					·	
						•
	•					

-

```
April 26, 2003, 07:27:07; search time 42.2347 Seconds (without alignments) 11258.801 Million cell updates/sec
                                                                                                                                                                                                                                                                             1 aagotttacagttactcagc.....agttggaaataaaacgtacg 437
GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                   709820 seqs, 544064369 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                           OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                              IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                           US-09-674-716B-2
437
                                                                                                                                                                                                                                                           Perfect score:
                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                       Sequence:
                                                                                                                                          Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Published\_Applications\_NA:\*

Database :

## Sequence 7; Appli Sequence 7, Appli Sequence 61, Appl Sequence 19, Appl Sequence 21, Appl Sequence 24, Appl Sequence 24, Appl Sequence 3813, Ap Sequence 9, Appli Sequence 5, Appli Sequence 5, Appli Sequence 3, Appli Sequence 3, Appli Sequence 3, Appli Sequence 63, Sequence 7, Description US-09-924-340-7 US-09-992-600A-7 US-09-992-600A-7 US-09-479-614-19 US-09-479-614-21 US-09-479-614-24 US-09-479-614-24 US-09-479-614-24 US-09-905-243-55 US-09-905-243-55 US-09-905-243-55 US-09-905-243-55 US-09-905-243-55 US-09-918-90-7 US-09-918-1833-9 US-10-124-95-5 US-09-948-422B-5 US-10-073-118-3 US-10-073-118-3 US-10-073-118-3 US-10-0748-960-1 Query Match Length DB 211.6 211.6 211.6 210.8 210.4 208.6 Score 245.2 241.2 241.2 238.4 238.4 223.6 222.8 222.8 220.4 218.6 217.4 Result Š.

Sequence 44, Appl Sequence 1, Appli Sequence 14, Appl Sequence 95, Appl Sequence 101, Appl	sequence 65, Appl Sequence 2, Appli Sequence 25, Appl Sequence 6, Appli Sequence 25, Appli	Sequence 27, Appl Sequence 15798, A Sequence 15819, A Sequence 98, Appl Sequence 105, App	Sequence 46, Appl Sequence 37, Appl Sequence 15969, A Sequence 32306, A Sequence 32307, A	Sequence 15896, A Sequence 99, Appl Sequence 22, Appl Sequence 2, Appli Sequence 8081, Ap Sequence 7, Appli
US-09-753-436-44 .US-09-990-205-1 US-10-006-773-14 US-09-840-459-101 US-09-840-459-101	US-09-753-436-65 US-09-822-698A-2 US-09-822-698A-25 US-09-822-668A-6 US-09-479-614-25	US-09-479-614-27 US-09-864-761-15798 US-09-864-761-15819 US-09-840-459-98	US-09-968-851-46 US-09-968-851-37 US-09-968-4761-15969 US-09-864-761-32306 US-09-864-761-32327	US-09-864-761-15896 US-09-848-798-99 US-09-978-728-22 US-09-203-956-2 US-09-864-761-8081 US-09-978-752-7
10710	01000	01001	10001	10 10 10 10
384 447 504 426 426	375 339 663 1143 666	666 563 573 344	1611 1611 568 476 335	588 336 879 1135 572 723
46.9 46.7 46.7 46.6	4444 4.024 4.020	44 45 44 8 8 8 8	4444	43.9 423.9 422.9 4.25.9
205 204.2 204.2 203.6 203.6	202 202 202 202 202 202 200.8	200.8 198 196.6 195.6	194 193.2 193.2 193.8	192 191.2 187.6 187.4 185.8
22 23 24 24	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	3 3 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4	38 38 39	44444 012843 0443
υ	i	0 0	•	υ

## ALIGNMENTS

```
Sequence 7, Application US/09924340
Publication No. US2030027248A1
GENERAL INFORMATION: Stephane
APPLICANT: Bejanin, Stephane
APPLICANT: Tanaka, Hiroaki
TITLE OF INVENTION: HUMAN CDNAS AND PROTEINS AND USES THEREOF
FILE REFERENCE: 91.US2.REG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 968;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 247; DB 9; Length 96
Pred. No. 1.6e-73;
0; Mismatches 100; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                      FILE TREFACE. 31.02.AS.

FILE TREFACE. 31.02.AS.

CURRENT FILING DATE: 2001-08-06

PRIOR PELING DATE: 2001-08-06

PRIOR FILING DATE: 2001-07-13

PRIOR FILING DATE: 2001-06-29

PRIOR PILING DATE: 2001-06-15

PRIOR APPLICATION NUMBER: US 60/298,698

PRIOR FILING DATE: 2001-06-15

PRIOR FILING DATE: 2001-06-15

PRIOR FILING DATE: 2001-06-15

NUMBER OF SEQ ID NOS: 112

SOFTWARE: JPAtent

SEQ ID NOS: 112

SERVING PRIOR FILING DATE: 2001-05-25

NUMBER OF SEQ ID NOS: 112

SERVING PRIOR FILING DATE: 2001-05-25

SOFTWARE: JPATENT

SERVING PRIOR FILING DATE: 2001-05-25

NUMBER OF SEQ ID NOS: 112

SERVING PRIOR FILING DATE: 2001-05-25

SERVING PRIOR P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   56.5%;
75.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 56.5
Best Local Similarity 75.4
Matches 307; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION: 32..748
NAME/KEY: 3'UTR
LOCATION: 749..968
NAME/KEY: POLYA_signal
LOCATION: 928..933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polyA_site
953..968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: 1..31
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: 5'UTR
US-09-924-340-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE
```

ö

Gaps ö

Sequence 1, Appli Sequence 10, Appl

US-09-992-600A-7

```
GTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTG 209
                                                                         AGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCA 149
                                                                                             146 GCCTCCATCTCCTGCAGGTCTAGTCAGAGCCTCCTGCATGTTCAAGGGTCCAACTATTG 205
                                                                                                                                                                                                                               AATTGGTTTCTGCAGAGCCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACC 269
                                                                                                                                                                                                                                                                GATTGGTACCACCAGAAGCCAGGGCAGTCTCCACAACTCCTGATATACTTGGGTTCTAAT 265
                                                                                                                                                                                                                                                                                                                            GAAATCAGTAGAGGTGAGGCTGAGGATGTGGGTGTATTACTGTCAACAACTTGTAGAG 389
                                                                                                                                                                                                                                                                                                                                                                                                      68
CTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTC
                       CGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Tanaka, Hitcaki

TITLE OF INVENTION: HUMAN CDNAS AND PROTEINS AND USES THEREOF
FILE REFERENCE: 91.054.DIV

CURRENT APPLICATION NUMBER: US/09/992,600A

CURRENT FILING DATE: 2001-11.3

PRIOR PELICATION NUMBER: US 09/924,340

PRIOR PELING DATE: 2001-08-06

PRIOR PELING DATE: 2001-08-06

PRIOR FILING DATE: 2001-07-13

PRIOR FILING DATE: 2001-07-13

PRIOR FILING DATE: 2001-07-13

PRIOR FILING DATE: 2001-07-15

PRIOR PELICATION NUMBER: US 60/298,58

PRIOR FILING DATE: 2001-06-15

PRIOR FILING DATE: 2001-05-25

NUMBER OF SEQ ID NOS: 114

SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATCCATTCACGTTCGGCTCGGGGACAAGTTGGAAATAAAACGTAC 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 7, Application US/09992600A Publication No. US20030027161A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Benjanin, Stephane APPLICANT: Tanaka, Hiroaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      polyA_signal
928..933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polyA_site
953..968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3'UTR
749..968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION: 32.748
FEATURE:
NAME/KEY: 3'UTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: 5'UTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: 1..31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-992-600A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE
                                                                                                                                                                                                                                                                  206
                                                                                                                                                                                                                                                                                                      270
                                                                                                                                                                                                                                                                                                                                                                                330
30
                                   26
                                                                                                           98
                                                                                                                                                   150
                                                                                                                                                                                                                             210
                                                                                                                                                                                                                                                                                                                                          566
                                                                                                                                                                                                                                                                                                                                                                                                                                                          390
ò
                                   a
                                                                                                         g
                                                                                                                                                                                       g
                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                         ð
                                                                                                                                                   à
                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
```

```
;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1;
                                                                                                                            90 AGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCA 149
                                                                                                                                             150 GITICCAICICCIGCAGGICTAGTAAGAGICICCTGTATAAGGAIGGGAAGACATACTIG 209
                                                                                                                                                                                                               210 AATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACC 269
                                                                                                                                                                                                                                                                            270 CGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTG 329
                                                                                                                                                                                                                                                                                                                                         330 GAAATCAGTAGAGGTGAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAG 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          150 GTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATA---AGGATGGGAAGACATAC 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90 AGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCA 149
                                                                               Gaps
                                                              30 CTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGGGGCTTATGTTCTGGATCTCTGGAGTC 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30 CICACCATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTC 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15 CTCACCATGAGGCTCCCTGCTCAGCTCCTGGGGCTGCTAATGCTCTGGGTCCCTGGGTCC 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        э;
е
                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 738;
   Length 968;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:

NAME/KEY: misc_feature

OCHER INFORMATION: Incyte ID No. US20030073105A1 1329931.2
US-10-158-646-61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                   390 TATCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAAACGTAC 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       386 ACTCCATTCACTTTCGGCCCTGGGACCAGAGTGGATATCAAGCGAAC 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 61, Application US/10158646

Publication No. US20030073105A1

GENERAL INPORMATION:
APPLICANT: Lasek, Amy K.W.
TITLE OF INVENTYON: GENES EXPRESSED IN COLON CANCER
FILE REFRENCE: PA-0030-1 US
CURRENT FILING DATE: 2002-05-29

PRIOR FILING DATE: 2001-05-31

NUMBER OF SEQ ID NOS: 78

SEQ ID NOS: 78

LENGTH: 738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 245.2; DB 9;
Pred. No. 5.7e-73;
0; Mismatches 93;
Score 247; DB 9; I
Pred. No. 1.6e-73;
0; Mismatches 100;
56.5%;
75.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          56.1%;
76.6%;
                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 76.6
Matches 314; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
Query Match
Best Local Similarity
Matches 307; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 3
US-10-158-646-61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                            q
                                                                                                                            δ
                                                                                                                                                            g
                                                                                                                                                                                            ò
                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                         οy
                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                    Db
                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŏλ
```

m

```
APPLICANT: WICCALLIN.

APPLICANT: Weber, Eric
TTLE OF INVENTION: Feline Immunoglobulin E Molecules and Related Methods
FITLE OF INVENTION: Feline Immunoglobulin E Molecules and Related Methods
FITLE OF INVENTION: Fold 7
CURRENT APPLICATION NUMBER: US/09/479,614
CURRENT FILING DATE: 2000-01-07
EARLIER APPLICATION NUMBER: 60/115,033
EARLIER PTLING DATE: 1999-01-07
NUMBER OF SEQ ID NOS: 34
SEQ ID NOS: 34
SEQ ID NO 21
LENGTH: 954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: McCall, Catherine
APPLICANT: Weber, Eric
APPLICANT: Weber, Eric
TITLE OF INVENTION: Feline Immunoglobulin E Molecules and Related Methods
FILE REFERENCE: P-1047
CURRENT APPLICATION NUMBER: US/09/479,614
CURRENT FILING DATE: 2000-01-07
EARLIER FILING DATE: 1999-01-07
NUMBER OF SEQ ID NOS: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90 AGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCA 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         210 AATTGGTTTCTGCAGAGCCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACC 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     270 CGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTG 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        330 GAAAICAGTAGAGTGAAGGCTGAGGATGTGGGGTGTGTATTACTGTCAACAACTTGTAGAG 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30 CTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGGTGCTTATGTTCTGGATCTCTGGAGTC 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   150 GTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 954;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361 CATCCTCTCACTTTCGGCCCAGGTACCAAGCTGGAGATCAAACGGA 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 390 TATCCATTCACGTTCGGCGCACAAAGTTGGAAATAAAACGTA 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 241.2; DB 9;
Pred. No. 1.4e-71;
0; Mismatches 103;
                                                                      RESULT 5
US-09-479-614-21/c
US-09-479-614-21/c
; Sequence 21, Application US/09479614
; Publication No. US20030013183A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 23, Application US/09479614 Publication No. US20030013183A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     55.2%;
llarity 74.6%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                  ; ORGANISM: Felis catus US-09-479-614-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-479-614-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            303;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Si
Matches 303;
                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
                   οp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ă
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Wacall, Catherine
APPLICANT: Weber, Eric
TTLE OF INVENTION: Feline Immunoglobulin E Molecules and Related Methods
FITLE OF INVENTION: Feline Immunoglobulin E Molecules and Related Methods
FILE REFERENCE: P-1047
CURRENT APPLICATION NUMBER: US/09/479,614
CURRENT FILING DATE: 1999-01-07
EARLIER FILING DATE: 1999-01-07
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PALENTIN Ver. 2.0
SEQ ID NO 19
LENGTH: 954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          207 TTGAATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCC 266
                                                                                                       267 ACCCGTGCATCAGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACC 326
                                                                                                                             255 CATCGGGCCTCTGGAGTCCCAGACAGGTTCAGTGGCAGTGGGTAGGCACTAATTTTCACA 314
                                                                                                                                                                             CTGGAAATCAGTAGAGGTGAAGGCTGAGGATGTGGTGTGTATTACTGTCAACAACTTGTA 386
                                                                                                                                                                                                 90 AGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCA 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   150 GTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTG 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     270 CGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTG 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             330 GAAATCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAG 389
135 GCCTCCATCTCCTGCAGGTCTAGTCAGAGCCTCTTCGATAGTGATGGAAACACCTAT 194
                                                          0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30 CTCACCATGAGGTTCTCTGTTCAGTTTCTGGGGGGTGCTTATGTTCTGGATCTCTGGAGTC 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 954;
                                                                                                                                                                                                                                                        GAGTATCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACGTAC 436
                                                                                                                                                                                                                                                                       GAGTTCCGCTCACTTTCGGCGGGGGCCAAGGTAGAGATCAAACGAAC 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 390 TATCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACGTA 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 241.2; DB 9;
Pred. No. 1.4e-71;
0; Mismatches 103;
                                                                                                                                                                                                                                                                                                                                                                               Sequence 19, Application US/09479614; Publication No. US20030013183A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55.2%;
74.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 74.64
Matches 303; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Felis catus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
LOCATION: (7)..(732)
                                                                                                                                                                                                                                                                                                                                            RESULT 4
US-09-479-614-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-479-614-19
                                                                                                                                                                                                                                                                                         375
                                                                                                                                                                               327
                                                                                                                                                                                                                                                      387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
a
                                   ò
                                                                  q
                                                                                                     οy
                                                                                                                                    g
                                                                                                                                                                             δ
                                                                                                                                                                                                             QQ
                                                                                                                                                                                                                                                      Óγ
                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

us-09-674-716b-2.rnpb

**5**6

Sat Apr

```
NAME/KEY: CDS
; LOCATION: (1)...(399)
US-09-905-243-55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      336
                                  216
                                                        546
                                                                              912
                                                                                                                           336
                                                                                                                                                 426
                                                                                                                                                                       396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  966
                                 \delta
                                                    g
                                                                         δ
                                                                                                  οqα
                                                                                                                          δλ
                                                                                                                                              qq
                                                                                                                                                                     ^{\circ}
                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Óλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        òγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          дQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Molecules and Related Methods
                                                                                                                                                                                                      275
                                                                                                                                                                                                                                                                                                 335
                                                                                                                                                                        GATATIGIGATAACCCAGGAIGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 66& GATATTGTGATGACGCAGACCCTCTGTCCCTCTCCCTCACCCTGGAGACGCCACCTCA 607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215
                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36 ATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTCAGTGGG 95
                                                                                                                                                                                                                                                                36 AIGAGGITCTCTGTTCAGITTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTCAGTGGG
                                                                                                                                                                                                                                                  216 TTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTGCA
                                                                                                                                                                                                                                                                                                TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC
                                                                                                                                                                                                                                                                                                                                             AGTAGAGGTGAGGATGTGGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .;
0
                                                                                           ö
                                                                  Length 726;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 9; Length 726;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                          TTCACGTTCGGCGCGCACAAGTTGGAAATAAAACGTA 435
                                                                                                                                                                                                                                                                                                                                                                                                     Score 238.4; DB 9;
Pred. No. 1.2e-70;
0; Mismatches 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 238.4; DB 9;
Pred. No. 1.2e-70;
0; Mismatches 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: MCCALI, Catherine
APPLICANT: MCCALI, Catherine
TITLE OF INVENTION: Feline Immunoglobulin E M
TILE PEPERBNCE: P-1047
CURRENT APPLICATION NUMBER: US/09/479,614
CURRENT FILING DATE: 2000-01-07
EARLIER FILING DATE: 1999-01-07
NUMBER OF SEQ ID NOS: 34
SOFURMER: PETENTING VET. 2.0
SEQ ID NO 24
LENGTH: 726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (L)
                                                                                                                                                                                                                                                                                                                                                                                                                                                         5-09-479-614-24/c
Sequence 24, Application US/09479614
Publication No. US20030013183A1
GENERAL INFORMATION:
                                                                  Query Match 54.6%;
Best Local Similarity 74.8%;
Matches 299; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 54.6%;
Best Local Similarity 74.8%;
Matches 299; Conservative
                     ; TYPE: DNA
; ORGANISM: Felis catus
US-09-479-614-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
CORGANISM: Felis catus
US-09-479-614-24
SEQ ID NO 23
LENGTH: 726
                                                                                                                                                                                                                                                                                             276
                                                                                                                                                           96
                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                             336
                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                          396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96
                                                                                                                                                                             g
                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                  q
                                                                                                                                                           ö
                                                                                                                                                                                                      ò
                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
```

```
547
                                                                                                                                                         TCAGGAGICTCAGACCGGITTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                    AGTAGAGTGAAGGCTGAGGATGTGGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                             GATATIGIGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ITTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTGCA 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTAGAGGTGAAGGTGTGTGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
36 ATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTCAGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITICTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 399;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches 109; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 55, Application US/09905243

Sequence 55, Application US/09905243

Patent No. US20020065009A1

GENERAL INFORMATION:

APPLICANT: TAYLOr, Alexander H

TITLE OF INVENTION: Monoclonal Antibodies with Reduced

TITLE OF INVENTION: Immunogenicity

FILE REFERENCE: P56770

CURRENT APPLICATION NUMBER: US/09/905,243

CURRENT FILING DATE: 2001-07-16

PRIOR FILING DATE: 1999-04-28

NUMBER OF SEQ ID NOS: 97

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 55

LENGTH: 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 10;
                                                                                                                                                                                                                                                                                                                                           TTCACGTTCGGCTCGGGGACAAGTTGGAAATAAAACGTA 435
                                                                                                                                                                                                                                                                                                                                                                 366 CTCACTTTCGGCCCAGGTACCAAGCTGGAGATCAAACGGA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 51.2%; Score 223.6; DB 1
Best Local Similarity 72.6%; Pred. No. 9.4e-66;
Matches 289; Conservative 0; Mismatches 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA ORGANISM: Macaca cynomolgus
```

Sat Apr. 26 09:25:10 2003

```
396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2196 AGTGGGGATGTTGTAATGACTCAGTCTCCACTCTCCCTGCCGTCACCCTTGGACAGCCG 2137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2136 GCCTCCATCTCCTGCAGGTCTAGTCAAAGCCTCGTACACAGTGATGGAAACACCTACTTG 2077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1111111111 | 11111 | 11111 | 1111111 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2256 CICACAATGAGGCTCCCTGCTCCAGCTCCTGGGGCTGCTAATGCTCTGGGTCCCAGGATCC 2197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          330 GAAATCAGTAGAGGTGAGGCTGAGGATGTGGGTGTATTACTGTCAACAACTTGTAGA- 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              270 CGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTG 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90 AGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCA 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30 CTCACCATGAGGTTCTCTGTTCTAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTC 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 210 AATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     150 GTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ouery Match 51.0%; Score 222.8; DB 9; Length 2272; Best Local Similarity 73.2%; Pred. No. 3.6e-65; Matches 300; Conservative 0; Mismatches .107; Indels 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     389 --GTATCCATTCACGTTCGGCTCGGGACAAAGTTGGAAATAAAACGTAC 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; NAME/KEY: misc_feature
; OTHER INFORMATION: Incyte ID No. US20030073105A1 1329920.3
US-10-158-646-63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 7, Application US/09748960
Patent No. US20010046496A1
GENERAL INFORMATION:
APPLICANT: Brettman, Lee R.
APPLICANT: Allison, David Edward
TITLE OF INVENTION: Method of Administering an Antibody
FILE REFERENCE: 1855.2007-001
CURRENT APPLICATION NUMBER: US/09/748,960
CURRENT FILING DATE: 2000-12-27
                                                                                                                                                                                          US-10-158-646-63/C
Sequence 63, Application US/10158646
Sequence 63, Application US/10158646
GENERAL INFORMATION:
APPLICANT: Lasek, Amy K.W.
APPLICANT: Sornasse, Thierry
TITLE OF INVENTION: GENES EXPRESSED IN COLON CANCER
FILE REFERENCE: PA-0030-1 US
CURRENT FILIG DATE: 2002-05-29
PRIOR APPLICATION NUMBER: 60/295,239
PRIOR APPLICATION NUMBER: 60/295,239
PRIOR FILING DATE: 2001-05-31
NUMBER OF SEQ ID NOS: 78
SOFTWARE: PERL PROGRAM
TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 10
US-09-748-960-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                          οp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

```
GENERAL INFORMATION:
APPLICANT: Piechaczyk, Marc
APPLICANT: No. US20020168339All, Daniele
TITLE OF INVENTION: Biological material for treating a mammal by antibody gene tra
TITLE OF INVENTION: pharmaceutical composition containing same
                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301 TCGCGAGTAGAGGCTGAGGACGTGGGATGTATACTGCTTACAAGGTACAGCATCAGCCG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         276 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      336 AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96 GATATTGTGAFAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   216 TITCIGCAGAGACCAGGACAATCTCCTCAGCTCCTGAIGTATTTGATGTCCACCCGTGCA 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                        36 ATGAGGTICTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTCAGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                           CTHER INFORMATION: Portion of the light chain LDP-02 with a light MARE/REX: CDS MARE/REX: CDS US-09-748-960-7
                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                          Length 413;
                                                                                                                                                                                                                                                                                                                      Score 220.4; DB 10; Length
Pred. No. 1.2e-64;
0; Mismatches 111; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: US 09/550,082
PRIOR FILING DATE: 2000-04-14
NUMBER OF SEQ ID NOS: 14
SEQ ID NO 7
LENGTH: 413
TYPE: DNA
TYPE: DNA
FEATURE:
FEATURE:
FEATURE:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILE REFERENCE: 19904 002
CURRENT APPLICATION NUMBER: US/09/341,894
CURRENT FILING DATE: 1999-12-15
PRIOR APPLICATION NUMBER: FR97/00540
PRIOR FILING DATE: 1997-01-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3, Application US/09341894 Patent No. US20020168339A1
                                                                                                                                                                                                                                                                                                                          Query Match 50.4%;
Best Local Similarity 72.1%;
Matches 287; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS: 4
SOFTWARE: PatentIn version
SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION: (1)..(420)
OTHER INFORMATION:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-341-894-3
```

```
TITLE OF INVENTION: Method for the Treatment and Prevention of Dental Caries FILE REFERENCE: 22851-032 CURRENT APPLICATION NUMBER: US/09/881,823 ; CURRENT FILING DATE: 2001-06-15
                              TGTTCAGTTTCTGGGGGGGCTTTATGTTCTGGATCTCTGGAGTCAGTGGGGATATTGTGAT 106
                                                                                                            GTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGGTTTCTGCAGAG 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92 TGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTGTGGAGAATCAGT 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         32 CACCATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTCAG 91
                                                                                          107 AACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCCATCTCCTGCAG
                                              227 ACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTGCATCAGGAGTCTC
                                                                                                                                                                                                                                      347 GGCTGAGGATG-TGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCATTCACGTTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 420;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 214; DB 10;
Pred. No. 1.7e-62;
0; Mismatches 120;
                                                                                                                                                                                                                                                                                                                                                                                                                 406 GCTCGGGGACAAGTTGGAAATAAAACGTAC 436
                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT FILING DATE: 2001-06-15
PRIOR APPLICATION NUMBER: US 07/378,577
PRIOR FILING DATE: 1999-08-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-881-823-9
; Sequence 9, Application US/09881823
; Patent No. US20020068066A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: SHI, WENYUAN
APPLICANT: ANDERSON, MAXWELL
APPLICANT: MORRISON, SHERIE
APPLICANT: TRINH, RYAN
APPLICANT: WIMS, LETITIA
APPLICANT: CHEN, LI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 49.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 70.4%;
Matches 286; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; NAME/KEY: CDS
; LOCATION: (13)..(417)
US-09-881-823-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
ORGANISM: Murine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Pate
SEQ ID NO 9
LENGTH: 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                               47
                                                                                                                                                         167
                                                            q
                                                                                            δy
                                                                                                                                                         ŏ
                                                                                                                                                                                      g
                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                     δλ
                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                              Db
                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                            light ch
                                                                                                                                                                                      ó
NAME/KEY: misc_feature<222> (1)..(420)
OTHER INFORMATION: Sequence coding for the variable region of the antibody
OTHER INFORMATION: ain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ï
                                                                                                                                                                                                            57 CTGGGGGTGCTTATGTTCTGGATCTCTGGAGTCAGTGGGGATATTGTGATAACCCAGGAT 116
                                                                                                                                                                                                                                                                          117 GAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCCATCTCCTGCAGGTCTAGTAAG 176
                                                                                                                                                                                                                                                                                              177 AGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGGTTTCTGCAGAGCCAGGACAA 236
                                                                                                                                                                                                                                                                                                                                                          GTGGGTGTGTATTACTGTCAACATTGTAGAGTATCCATTCACGTTCGGCTCGGGGACA 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                     237 TOTCCTCAGGTCCTGATGTATTTGATGTCCACCCGTGCATCAGGAGTCTCAGACCGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATCAGTAGAGTGAAGGCTGAGGAT
                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Benson, Darin R.
APPLICANT: Benson, Michael D.
APPLICANT: Lodges, Michael J.
APPLICANT: Lodges, Michael J.
APPLICANT: Devid H.
APPLICANT: Hepler, William T.
APPLICANT: Hepler, William T.
APPLICANT: Hepler, William T.
APPLICANT: Jang, Yuqiu
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF PANCREATIC CANCER
TITLE REPERENCE: 210121.566
CURRENT APPLICATION NUMBER: US/10/060,036
CURRENT FILING DAPE: 2002-01-30
NUMBER OF SEQ ID NOS: 4560
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ij
                                                                                                                                                      Length 420;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 492;
                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                    66
                                                                                                                                                    DB 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ouery Match
49.7%; Score 217.4; DB 9;
Best Local Similarity 73.9%; Pred. No. 1.3e-63;
Matches 289; Conservative 0; Mismatches 101;
                                                                                                                                                 Score 218.6; DB 9
Pred. No. 4.8e-64;
0; Mismatches 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3813, Application US/10060036; Publication No. US20030073144A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ) OTHER INFORMATION: n = A, T, C or US-10-060-036-3813
                                                                                                                                               Query Match
Best Local Similarity 73.7%;
Matches 278; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGTIGGAAATAAAACG 433
                                                                 ) NAME/KEY: sig_peptide
; LOCATION: (1)...(57)
; OTHER INFORMATION:
US-09-341-894-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
US-10-060-036-3813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               417
                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
```

ő

ö

Gaps

; 0

9

δý qq δλ Ω δλ q ŏ g

```
APPLICANT: Anderson, Darrell R.
TITLE OF INVENTION: "MONKEY MONOCLONAL ANTIBODIES SPECIFIC
TITLE OF INVENTION: TO HUMAN B7.1 AND/OR B7.2 PRIMATIZED FORMS THEREOF,
TITLE OF INVENTION: PHARMACEUTIAL COMPOSITIONS CONTAINING, AND USE THEREOF AS
TITLE OF INVENTION: IMMUNOSUPPRESANTS"
NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                             96 GATATIGIGATAACCCAGGAIGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                             61. GAAGTTGTGATGACTCAGTCTCCACTGCCCTTCCCATCACACCTGGAGCCGGCCTCC 120
                                                                                                                                                                                                                                                                   121 ATCTCCTGTAGGTCTAGTCAAAGCCTTAAACACAGTAATGGAGACACCTTCCTGAGTTGG 180
                                                                                                                                                                                                                                                                                                                                 216 TITCIGCAGAGACCAGGACAATCICCTCAGCTCCTGATGIAITTGATGTCCACCCGTGCA 275
                                                                                                                                                                                                                                                                                                                                                                                                                       276 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               336 AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                           1 ATGAGCCTCCCTGCTCAGCTCCTCGGGCTGCTATTGCTCTGCGTCCCCGGGTCCAGTGGG
                                                                36 ATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTCAGTGGG
                                                                                                                                                                                                                                           156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
Pred. No. 1.4e-61;
0; Mismatches 119; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         396 TTCACGTTCGGCTCGGGGACAAGTTGGAAATAAAACGTACG 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SYSTEM: PC-DOS/MS-DOS
PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SSEE: BURNS, DOANE, SWECKER & MATHIS
1: 699 Prince Street
Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            012712-131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US/09/948,429B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US 08/487,550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09/383,916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 5, Application US/09948429B Patent No. US20020177689A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 35,030
REFRENCE/DOCKET NUMBER: 012
TELECOMMUNICATION INFORMATION:
TELEPHONE: 703-836-6620
TELEPHONE: 703-836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS
  Best Local Similarity 70.4%;
Matches 283; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 07-JUN-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Teskin, Robin L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Re-
CURRENT APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA: APPLICATION NUMBER: (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-948-429B-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY:
STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                               qq
                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                        Db
                                                                                                                                                                                                                                                                                                                                                                                                                           δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ρp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŏλ
                                                                                                                                                          δ
                                                                                                                                                                                                                                                Óλ
                                                                                                                                                                                                                                                                                       pp
                                                                                                                                                                                                                                                                                                                                   δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Anderson, Darrell R.

TITLE OF INVENTION: "MONKEY MONOCLONAL ANTIBODIES SPECIFIC
TITLE OF INVENTION: TO HUMAN B7.1 AND/OR B7.2 PRIMATIZED FORMS THEREOF,
TITLE OF INVENTION: PHARMACEUTIAL COMPOSITIONS CONTAINING, AND USE THEREOF AS
TITLE OF INVENTION: IMMUNOSUPPRESANTS"
                                                                                                                                                                                                                              309 AATCAGCAGAGTGGAGGCTGAGGATTTGGGAGTTTATTATTATTGTGGGAAGGTACACATTT 368
                                         249 GGACTCTGGAGTCCCTGACAGGTTCACTGGCAGTCAGGGACAGGATTTCACACTGAA 308
                                                                                                                                                                                                    332 AATCAGTAGAGGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTA 391
                         212 TIGGITICIGCAGAGACCAGGACAAICTCCTCAGCTCCTGAIGTATTTGAIGTCCACCCG
                                                                                                                 272 TGCATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 720;
                                                                                                                                                                                                                                                                                            392 TCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACGTACG 437
                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SSEE: BURNS, DOANE, SWECKER & MATHIS
F: 699 Prince Street
Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                48.4%; Score 211.6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    012712-131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
APPLICATION NUMBER: US 08/487,550
FILING DATE: 07-UN-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/10/124,90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/383,916
                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 5, Application US/10124905
Patent No. US20020166136A1
GENERAL INFORMATION:
APPLICANT: Anderson, Darrell R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Teskin, Robin L.
REGISTRATION NUMBER: 35,030
REFERENCE/DOCKET NUMBER: 0127.
TELECOMMUNICATION INFORMATION:
TELEPHONE: 703-836-6620
TELEFAX: 703-836-2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 703-836-2021
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 720 base pairs
TYPE: nucleic acid
STRANDEDNESS: not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mat_peptide 1..720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1..720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        inear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
LOCATION: 1...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; LOCATION:
US-10-124-905-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 14 .
US-10-124-905-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
```

```
ő
                                                                                                                                                                                                                                        156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215
                                                                                                                                                                                                                                                                                                  276 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                216 TITCIGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCGTGCA 275
                                                                                                                                                                                                                                                                                                                                                                                                                         336 AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                             36 ATGAGGTTCTCTGTTCTGGGGGGGGGCTTATGTTCTGGATCTCTGGAGTCAGTGGG 95
                                                                                                                                                                                                           ;
0
                                                                                                                                                 396 TTCACGTTCGGCTCGGGACAAGTTGGAAATAAAACGTACG 437
LENGTH: 720 base pairs
TYPE: nucleic acid
STRANDEDNESS: not relevant
TOPOLOGY: linear
MOLECULE TYPE: peptide
FEATURE:
LOCATION: 1..720
FEATURE:
                                                                                                                                                Query Match
Best Local Similarity 70.4
Matches 283; Conservative
                                                                                                    ) NAME/KEY: mat_peptide
; LOCATION: 1..720
US-09-948-429B-5
                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                  đ
                                                                                                                                                                                                                                                                                                                                                                                                                                             g
```

Search completed: April 26, 2003, 09:24:09 Job time : 47.2347 secs

İ

```
GenCore version 5.1.4_p5_4578

Copyright (c) 1993 - 2003 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: April 26, 2003, 04:57:16; Search time 18.1006 Seconds

(without alignments)

71tle: (Without alignments)

7404.053 Million cell updates/sec

72 Perfect Score: 437

Sequence: 1 aagctttacagttactcagc......agttggaaataaaacgtacg 437

Scoring table: IDENTITY_NUC

Gapop 10.0, Gapext 1.0

Searched: 41362 seqs, 153338381 residues

Total number of hits satisfying chosen parameters: 882724

Minimum DB seq length: 0
```

Minimum DB seq length: 0

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database: Issued\_Patents\_NA:\*

1: /cgn2\_\_c/ptodata1/ina/5b\_COMB.seq:\*
2: /cgn2\_\_6/ptodata1/ina/5b\_COMB.seq:\*
3: /cgn2\_6/ptodata1/ina/6A\_COMB.seq:\*
4: /cgn2\_\_6/ptodata1/ina/6B\_COMB.seq:\*
5: /cgn2\_6/ptodata1/ina/PCTUS\_COMB.seq:\*
6: /cgn2\_6/ptodata1/ina/PCTUS\_COMB.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

	Description	Sequence 88, Appl	Sequence 99, Appl	86, A	Sequence 107, App		Sequence 90, Appl	Sequence 103, App		O	•	Seguence 3, Appli	Sequence 3, Appli	7	٠,	Seguence 40, Appl	Sequence 52, Appl	54,	Sequence 11, Appl	11,	8, 4	Seguence 4, Appli	Sequence 4, Appli	Sequence 4, Appli	Sequence 4, Appli	Sequence 4, Appli	Ø	Sequence 93, Appl
SUMMARIES	ID	US-08-672-345C-88	US-09-214-095D-99	US-08-672-345C-86	US-09-214-095D-107	US-09-214-095D-111	US-08-672-345C-90	US-09-214-095D-103	US-08-438-123-15	US-08-253-877C-9	US-08-452-164A-9	US-08-603-024-3	US-08-483-749A-3	US-09-406-532-13	US-08-392-419-3	US-08-732-708C-40	US-08-875-811-52	US-08-875-811-54	US-08-259-372A-11	US-08-468-671-11	US-08-053-171-8	US-08-468-661-4	US-08-466-272A-4	US-08-478-857-4	US-08-471-771-4	US-09-130-783-4	US-08-053-171-4	US-08-129-930B-93
	DB	7	4	7	4	4	7	4	Н	~	7	m	m	4	Н	m	m	m	Н	~		Н	-	Н	~	m	Н	Н
	Query Match Length DB	339	339	368	368	420	368	368	464	399	399	399	336	339	882	373	1095	1098	405	405	427	325	325	325	325	325	434	394
æ	Query Match	72.6	72.6	72.6	72.6	72.3	8.07	70.8	67.1	63.2	63.2	63.2	57.1	56.8	54.9	54.0	52.8	52.8	51.8	51.8	51.2	50.7	50.7	50.7	50.7	50.7	50.1	48.7
	Score	317.2	317.2	317.2	317.2	316	309.2	309.2	293.2	276.4	276.4	276.4	249.6	248.4	240	236	230.8	230.8	226.2	226.2	223.6	221.4	221.4	221.4	221.4	221.4	219	212.8
	Result No.	П	7	m	4	5	9	7	œ	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27

0;

156 ATCTCCTGCAGGTCTAGTAAGTAGTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215

ŏλ

			Ü	
APPI APPII APPII APPII APPII APPII APPII APPII APPII APPII APPII APPII APPII APPII APPII			S	155 60
4444 , 1, 200 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			Gaps	
sedneuce sed				TTT(      TTT
sedneuce sed			339	CAG         CAG
000000000000000000000000000000000000000		440	പ മ	AAT  -  AAT
		Я	Length Indels	GAG         GAG
		#1.30		CTG
		11.3	B 2; 97; 13;	CTT
US-08-134-346A-48 US-08-976-288A-93 US-08-487-550-5 US-077-696C-64 US-08-129-939-8 US-08-976-288A-64 US-08-976-288A-64 US-08-976-288A-64 US-08-129-930B-64 US-08-129-930B-26 US-08-129-930B-26 US-08-134-346A-13 US-08-134-346A-13 US-08-192-545-3 US-08-192-545-3 US-08-192-545-3 US-08-482-882-44 US-08-483-389-44			e D	STC
4664 8884 3060 3060 3090 3090 4684 6884 130	ITS	rTIC	.2; 7.8 ches	1000 1000 1000 1000
7. 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	ALIGNMENT	CATALYTIC CATALYTIC icas	317.2; No. 7.8 smatches	AAT(      AAT(
-13 -97 -97 -97 -97 -97 -97 -97 -97 -97 -97	TIG		re d. J	1001
	IA.	2345C AINE C AINE C S-DOS #1.0, 672,34 8 8 8 575/51	Scc Pre	CTC
		08672345C '-COCAINE C LOCAINE C trible OS/MS-DOS ease #1.0, 5/08/672,34 996 N: 88: 88:	., .,	GAA       GAA
4 4 6 1 1 1 4 6 8 8 8 1 1 1 4 4 6 1 1 1 1 1 1 1		US/08 108 108 108 108 108 108 108 1		GAT
33399 33399 33399 33399 3339 33444 444 4		SULT 1 -08-672-345C-88 -08-672-345C-88 -08-672-345C-88 -08-672-345C-88 -08-672-345C-88 -08-68-80-80-80-80-80-80-80-80-80-80-80-80-80	72. larity 96. Conservative	GATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTCC 
		ication  100:  100	cy erve	AACO BACO
C		pplicat f658 Landry Cuence Coop Coop Coop Coop Coop Coop Coop Coo	arity	GATA
44444444444444444444444444444444444444		T T 1 -672-345C-88 NERAL INFORMATION: BURTL INFORMATION: APPLICANT: Landry Dona TITLE OF INVENTION: AN NUMBER OF SEQUENCES: CORRESPONDENCE ADDRESS: CORRESPONDENCE ADDRESS: CORRESPONDENCE ADDRESS: CONDETEN: 1185 Avenue CITY: New YORK COUNTRY: USA LIPS Avenue CITY: New YORK COUNTRY: USA COMPUTER: FLOPPY COMPUTER: ELDEPY COMPUTER: ELDEPY COMPUTER: ELDEPY COMPUTER: APPLICATION DA APPLICATION NUMBER: FILING DATE: 24-JUN CUASSIFICATION INFORMATION NUMBER: REGISTRATION NUMB	mila C	767 
889077700004444780000		17.1. 16.12.345C-88 16.12.345C-88 16.12.345C-88 16.12.34.14. 17.11.6 OF INV UNBERA DE SEE 17.12.10. 17.12.	Match Local Simil Les 325; C	TAT     TAT
212.8 212.8 2112.6 2211.5 2211.2 2211.2 2211.2 201.6 206.6 206.6 206.4 206.4 206.4 206.4 206.4 206.4 206.4 206.4 206.2 206.2 206.2 206.2 206.3 2		T. 1.  1-672-345C-1  1-672-345C-1  NUBERAL INFO  APPLICANT:  TITLE OF T.  TITLE OF T.  TITLE OF T.  TOUNTRY:  CONTRY:  COUNTRY:  2.1P: 10  COMPUTER  MEDIUM T  COMPUTER  OPERATIUM T  COMPUTER  NEDIUM T  COMPUTER  SOFTWARE  CURSSIFITA  TELECOMMUN  TELECOMUN  TELECOMMUN  TELECOMMU	Match local S	
		6672 177 177 177 177 177 177 177 1	Y M Lo	96
288 335 335 337 337 444 444 445 445 445 445 445 445 445 44		SULT 1  -08-672-345C-88  -08-672-345C-88  GENERAL INFORM APPLICANT: TITLE OF INV NUMBER OF SE CONRESPONDEN ADDRESSEE: STREET: 1 CITY: New STATE: New TILING DAI CLASSIFICA TELECOMMUNIC FILING DAI CLASSIFICA TELECOMMUNIC TELECOMMUNIC TELECOM TELECAN TELECAN TELECAN TELECAN TELECAN TELECAN TOPOLOGY: MOLECULE TYPE: NO STATE TOPOLOGY: MOLECULE TYPE TOPOLOGY: NOLECULE TOPOLOGY: TOPOLOGY: NOLECULE TOPOLOGY: TOP	Query Ma Best Loc Matches	
		RESULT 105-08-08-08-08-08-08-08-08-08-08-08-08-08-	ишъ	Qy Db
·				

```
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          òγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ρp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                          335
                                                                                                                                               ATCTCCTGCAGGTCTAGAGGAGTCTCCTATATAGGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                  AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96 GATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTGCA 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAGGAGICICAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       336 AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                          276 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC
                          216 TTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GATATTGTGATGACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 339;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 86, Application US/08672345C
Patent No. 5948658
GENERAL INFORMATION:
APPLECANT: Landry Donald, W.
TITLE OF INVENTION: ANTI-COCAINE CATALYTIC ANTIBODY
                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION:
ANTI-COCAINE CATALYTIC ANTIBODY
FILE REFERENCE: 51400-A-PCT-US
CURRENT APPLICATION NUMBER: US/09/214,095D
CURRENT FILING DATE: 1999-07-19
NUMBER OF SEQ ID NOS: 121
SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 4;
                                                                                                                                                                                        TTCACGTTCGGCGCGCGCAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                    301 TTCACGTTCGGCTCGGGGACAAGTTGGAGATAAAACG 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCACGTTCGGCTCGGGGACAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 317.2; DB
Pred. No. 7.8e-97
0; Mismatches 1.
                                                                                                                                                                                                                                                       REULT 2
US-09-214-095D-99
Sequence 99, Application US/09214095D
Patent No. 6280987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    72.68;
96.28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 325; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                              ; TYPE: DNA; ORGANISM: Murine
US-09-214-095D-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-672-345C-86
                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 339
                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 99
61
                                                                                                                                                                                      396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               396
                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 216
                                                                                                                                                          Dp
a
                         ò
                                                   g
                                                                             ò
                                                                                                       q
                                                                                                                                  ò
                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

```
ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTATATGAGGAAGAGAAGACATACTTGAATTTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           276 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96 GATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          216 TITCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCGTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               336 AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 107, Application US/09214095D
Patent No. 6280987
GENERAL INFORMATION:
APPLICANT: Landry, Donald
TITLE OF INVENTION: ANTI-COCAINE CATALYTIC ANTIBODY
FILE REFERENCE: 51400-A-PCT-US
CURRENT APPLICATION UNDRER: US/09/214,095D
CURRENT FILING DATE: 1999-07-19
NUMBER OF SEQ ID NOS: 121
                                                                                                                                                                                                                           SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUBER: US/08/672,345C FILING DATE: 24-JUN-1996 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72.6%; Score 317.2; DB 2 96.2%; Pred. No. 8.1e-97; ive 0; Mismatches 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                396 TTCACGTTCGGCTCGGGACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                       0575/51400
                                                                                                                                                                                                                PC-DOS/MS-DOS
                 Dunham
                                                                                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-
                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: White, John P.
REGISTRATION NUMBER: 28,678
                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 05
TELECOMUNICATION INFORMATION:
TELEPHONE: 212-278-0400
TELEFAX: 212-391-0525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEO ID NO: 86;
                 3: Cooper and D
1185 Avenue of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 368 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 325; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                          COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
CORRESPONDENCE ADDRESS
                                                                              New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
                                                            New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE:
                                                                                                                        10036
               ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-214-095D-107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-672-345C-86
                                                                                                    COUNTRY:
```

ô

```
216 TITCIGCAGAGACCAGGACAAICICCICAGCICCIGAIGIATITGAIGICCACCGGGCA 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 ATCTCCTGCAGGTCTAGTAGAGTCTCCTATATAGGATGGGAGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGAACAGATTCACCCTGGAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96 GATATIGIGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                    9
                         CATCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAA 333
                                                                   TCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATC 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: ANTI-COCAINE CATALYTIC ANTIBODY NUMBER OF SEQUENCES: 108
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 2;
                                                                                                                                                   394 CATICACGTICGGCTCGGGGACAAGTIGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10.8%; Score 309.2; DB 2; ilarity 94.7%; Pred. No. 3.9e-94; Conservative 0; Mismatches 18;
                                                                                                                                                                                                                                                                                                                              ...urkesse: ...urkess:
STREET: 1185 Avenue of the Americas CITY: New York
STATE: New York
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0575/51400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/672,345C
FILING DATE: 24-JUN-1996
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PC-DOS/MS-DOS
                                                                                                                                                                                                                                              Sequence 90, Application US/08672345C Patent No. 5948658 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: White, John P.
REGISTRATION NUMBER: 28,678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 05:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-278-0400
                                                                                                                                                                                                                                                                                                APPLICANT: Landry Donald, W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ. ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   : 368 base pairs
nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     212-391-0525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   single
                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                            10036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-672-345C-90
                                                                                                                                                                                                                   RESULT 6
US-08-672-345C-90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Simi
Matches 320;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
           274
                                                                        334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                        QO
                                                                                                     Ω
                                                                                                                                     δλ
                                                                                                                                                                    Db
                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . LOCATION: (1)..(403)
; OTHER INFORMATION: n at any position represents any nucleotide including c.g,t,a,u
US-09-214-095D-111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   111 CCATCTCCTGCAGGTCTAGTAGGAGTCTCCTATATAGGGATGGGAAGACATACTTGAATT 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  154 CCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATT 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGTTTCTGCAGAGCCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTG 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94 GGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTT 153
                                                                                                                                                                                                                                      215
                                                                                                                                                                                                                                                     276 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                   216 TITCIGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTGCA 275
                                                                                                                                                                       96 GATATIGIGATAACCCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                       Gaps
                                                                                                                                                                                                      09
                                                                                                                                                                                       156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .,
                                                                                                                                       ;
0
                                                                                                          Length 368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tch 72.3%; Score 316; DB 4; Length 420; al Similarity 95.6%; Pred. No. 2.2e-96; 325; Conservative 0; Mismatches 15; Indels
                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 111, Application US/09214095D
Patent No. 6280987
GENERAL INFORMATION:
TITLE OF INVENTION: ANTI-COCAINE CATALYTIC ANTIBODY
FILE REFERENCE: 51400-A-POT-US
CURRENT APPLICATION NUMBER: US/09/214,095D
CURRENT FILNG DATE: 1999-07-19
NUMBER OF SEQUENCE: 1999-07-19
CORMINER OF SEQUENCE: 1999-07-19
                                                                                                         Score 317.2; DB 4;
Pred. No. 8.1e-97;
0; Mismatches 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCACGTTCGGCTCGGGGACAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PatentIn version 3.0
PatentIn version 3.0
                                                                                                          72.6%;
96.2%;
                                                                                                                                          Matches 325; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA ORGANISM: Murine
                                             TYPE: DNA
CRGANISM: Murine
US-09-214-095D-107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
US-09-214-095D-111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE:
SEQ ID NO 111
                                LENGTH: 368
SOFTWARE:
SEQ ID NO 107
                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
                                                                                                                             Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   396
                                                                                                                                                                                                                                                                                                                                                                                                                                      336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dp
                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                      δλ
                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                            οy
                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                       δ
```

```
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/906,350
FILING DATE:
                                                                                                                                                     APPLICATION NUMBER: US/08/438,123 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 9, Application US/08253877C; Patent No. 5773001; GENERAL INFORMATION: APPLICANT: Hamann, Philip R. APPLICANT: Hollander, Irwin APPLICANT: Hollander, Irwin APPLICANT: Hollomb, Ryan APPLICANT: Tsou, HweirRu APPLICANT: Tsou, HweirRu APPLICANT: Weiss, Martin J. TITLE OF INVENTION: Gonjugates of M. TITLE OF INVENTION: Agents and Inte
                                                                                                                                                                                                                                                                                                                                                                                                                                                         149-011
                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: DOS TEXT FILE CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
TELEPHONE: 703 684 1111
INFORMATION FOR SEQ ID NO: 15:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                     NAME: J.G. Mullins
REGISTRATION NUMBER: 33073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
US-08-438-123-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 67.1%;
Best Local Similarity 82.2%;
Matches 337; Conservative (
                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: J.G. Mullins
Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 464 base pairs
TYPE: Nucleic acid
STRANDEDNESS: single
   MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 9
US-08-253-877C-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ó
                                 AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                1411 | 1111 | 1111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111 | 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 ATCTCCTGCAGGTCTAGTAGGAGTCTCCTATATAGGGAATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   216 TTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTGCA 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     276 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGAACAGATTTCACCCTGGAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      96 GATATIGIGATAACCCAGGAIGAACTCTCCAATCCIGICACTICTGGAGAATCAGTITCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTAGAGTGAAGGCTGAGGATGTGGGGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 4; Length 368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Lindholm et al
TITLE OF INVENTION: TUMOR ANTIGEN SPECIFIC ANTIBODY
NUMBER OF SEQUENCES: 16
OORRESPONDENCE ADDRESS:
ADDRESSEE: Lowe, Price, Leblanc & Becker
STREET: Suite 300, 99 Canal Center Plaza
                                                                                                                                                                                                                                                                                                                                                                              Sequence 103, Application US/09214095D
Patent No. 6280987
GENERAL INFORMATION:
APPLICANT: Landry, Donald
APTILE OF INVEWTION:
FILE REFERENCE: 51400-A-PCT-US
CURRENT APPLICATION NUMBER: US/09/214,095D
NUMBER OF SEQ ID NOS: 121
SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              70.8%; Score 309.2; DB 4; 94.7%; Pred. No. 3.9e-94; iive 0; Mismatches 18;
                                                                                                                                                        301 TTCACGTTCGGCTCGGGGACAAATTGGAGATAAAACG 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 396 TTCACGTTCGGCGCACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: LOWE, Price, LeBlanc & Becker STREET: Suite 300, 99 Canal Center Plaza STATE: Virginia COUNTRY: USA 2114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 15, Application US/08438123
Patent No. 5552293
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA ORGANISM: MURINE
                                                                                                                                                                                                                                                                                                                                                   US-09-214-095D-103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-214-095D-103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-438-123-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Sim
Matches 320;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       336
                              336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                        g
                                                                                                                                                            å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

```
90 GGAGCCATTGGGGATATTGTGATGACTCAGGCTGCACCCTGTACCTGTACCTGTACCTGTGA 149
                                                                                                                                                                                                                                                                                                                                                                                 150 GAGTCAGTATCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGCATAGTAATGGCAACACT 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                204 TACTTGAATTGGTTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               210 TACTTGTATTGGTTCCTGCAGAGGCCAGGCCAGTCTCCTCAGCTCCTGATATATCGGATG 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              264 TCCACCCGTGCATCAGGAGTCTCAGACCGGTTTAGTGGCGAGGGGGCAGGGCACAGATTTC 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            84 GGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTCCCAATCCTGTCACTTCTGGA 143
                                                                                                                                                                                                                                                                                                                                                  144 GAATCAGTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACA 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  324 ACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTT 383
                                                                   Gaps
                                                                                                                                                  Conjugates of Methyltrithio Antitumor Agents and Intermediates for Their Synthesis
                                                                ő
Score 293.2; DB 1; Length 464; Pred. No. 1e-88; 0; Mismatches 73; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                384 GTAGAGTATCCATTCACGTTCGGCTCGGGACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           390 CTAGAGTATCCGTTCAGTTCAGTCCTGGGACCAAGCTGGAAACG 439
```

ó

```
61 GATATTGTGATGACTCAGGCTGCACCCTCTCTTCTTCTTCTTGAGAGAGTCATTATCC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTGCA 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241 TCCGGAGTCCCAGACAGGTTCAGTGGCAGTGGGTCAGGAACTGCTTTCACACTGAGAGTC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATATTGTGATAACCCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAGGAGTCTCAGACCGGTTTAGTGGCCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTAGAGTGAAGGCTGAGGATGTGGGGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36 ATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTCAGTGGG 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Tsou, Hwei-Ru J. PRINCALT WEIGHT WEIGHT WEISS, MARTIN J. TITLE OF INVENTION: Conjugates of Methyltrithio Antitumor TITLE OF INVENTION: Agents and Intermediates for Their Synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 399;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63.2%; Score 276.4; DB 2;
80.9%; Pred. No. 4e-83;
live 0; Mismatches 76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                               ADDRESSEE: American Home Products Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/452,164A FILING DATE: 26-MAY-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 32,368-04
                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Barnhard, Elizabeth M.
REGISTRATION NUMBER: 31,088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31,088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 32
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-683-2158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
                                                              Hollander, Irwin
Holcomb, Ryan
Hallett, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 201-683-4117
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                    One Campus Drive
                                                                                                                                                                                                                                                                                                                                                                                                                        Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 399 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 80.9
Matches 322; Conservative
                                            Hinman, Lois
                                                                                                                                                                                                                                                                                                                                                                          ZIP: 07054
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy of
                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                  CITY: Parsippany
STATE: New Jersey
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-452-164A-9
                                                                                   APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                      STREET:
                                                                   APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 ATTICCTGCAGGTCTAGTAAGAGTCTCCTTCATAGTAATGGCGACACTTTCTTGTATTGG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 TCCGGAGTCCCAGACAGGTTCAGTGGCAGTGGGTCAGGAACTGCTTTCACACTGAGAGTC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             336 AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATATIGIGATAACCCAGGAIGAACTCTCCAATCCTGTCACTICTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 GATATIGIGATGACTCAGGCTGCACCCTCTGTTCCTGTCACTCCTGGAGAGTCATTATCC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITCIGCAGAGACCAGGACAAICICCICAGCICCIGAIGIAITIGAIGICCACCCGIGCA 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181 TICCIGCAGAGGCCAGGCCAGTCICCTCAACTCCTGATATATCGGATGTCCAACCTTGCC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36 ATGAGGTTCTCTGTTCAGTTTCTGGGGGTGCTTATGTTCTGGATCTCTGGAGTCAGTGGG 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 Argaggraccradcragarracragggargcragracaraccragaggarragg 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 399;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: 0S/08/253,877C FILING DATE: 03-JUN-1994 CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                63.2%; Score 276.4; DB 1;
80.9%; Pred. No. 4e-83;
Live 0; Mismatches 76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             396 ITCACGITCGCCTCGGGGACAAGTIGGAAAIAAAACG 433
                CORRESPONDENCE ADDRESS:
ADDRESSEE: American Cyanamid Company
STREET: One Cyanamid Plaza
                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: Barnhard, Elizabeth M.
REGISTRATION NUMBER: 31,088
REFERENCE/DOCKET NUMBER: 32,368
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-831-3246
TELEFAX: 201-831-3305
                                                                                                                                                                                                                 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; Sequence 9, Application US/08452164A
; Patent No. 5877296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                              Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: 201-831-3305
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             : 399 base pairs
nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           single
                                                                                                                           COUNTRY: U.S.A. ZIP: 07470-8426
COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
NUMBER OF SEQUENCES:
                                                                                                             New Jersey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1..399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 322; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: CDS
; LOCATION: 1..3
US-08-253-877C-9
                                                                   one ortif: Wayne STATE: North
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
US-08-452-164A-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ω
```

ò

ŏ

δ

ò g

```
AGTAGAGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96 GATATIGIGATAACCCAGGAIGAACICICCAAICCIGICACTICIGGAGAAICAGITICC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         276 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   216 TITCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCGTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 336;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: RING, DAVID B.
TITLE OF INVENTION: ANTIGEN-BINDING SITES OF ANTIBODY
TITLE OF INVENTION: MOLECULES SPECIFIC FOR CANCER ANTIGENS
NUMBER OF SEQUENCES: 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : INTELLECTUAL PROPERTY - R440, PO BOX 8097 EMERYVILLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/483,749A FILING DATE: US-JUN-1995 CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 249.6; DB 3;
Pred. No. 3.5e-74;
0; Mismatches 54;
                                                                                                                                                                                                                    396 TTCACGTTCGGCTCGGGACAAAGTTGGAAATAAAACG 433
                                                                                                                                                                                                                                                        361 TTCACGTTCGGTGCTGGGACCAAGCTGGAGCTGAAACG 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY AGENT INFO DAY

NAME: SAVERIDE, PAUL B.

REGISTRATION NUMBER: 36,914

REFERENCE/DOCKET NUMBER: 0508.008

TELECOMMUNICATION INFORMATION:

TELEPHONE: (510) 601-2885

TELEFAX: (510) 655-354

INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 336 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 3, Application US/08483749A Patent No. 6054561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHIRON CORPORATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               57.1%;
83.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 94662-8097
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic a STRANDEDNESS: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
US-08-483-749A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-483-749A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 282;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET:
                                                                                                                                                      qq
                                                                                                                                                                                                                                                                            qq
                                                                                           δ
                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  96 GATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTGCA 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           276 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      36 ATGAGGITCICTGITCAGITICIGGGGGTGCITATGITCIGGATCICIGGAGICAGIGGG 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 ATGAGGIGCCTAGCTGAGGTTCCTGGGGCTGCTGTGTGCTCTGGATCCCTGGAGCCATTGGG 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ·,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63.2%; Score 276.4; DB 3; Length 399; 80.9%; Pred. No. 4e-83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                APPLICANT: Hinman, Lois M.
APPLICANT: Menendez, Ana T.
APPLICANT: Hamann, Philip R.
TITLE OF INVENTION: TARGETED FORMS OF METHYLTRITHIO
TITLE OF INVENTION: ANTITUMOR AGENTS
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: DATE: COMPAGENE COMPAGENE
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/603,024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: American Home Products Corporation
STREET: One Campus Drive .
CITY: Parsippany
                                                    361 TTCACGTTCGGTGCTGGACCAAGCTGGAGCTGAAACG 398
                      396 TTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 16-FEB-1996
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Barnhard, Elizabeth M.
REGISTRATION NUMBER: 31,088
REFERENCE/DOCKET VUMBER: 31,932-03
TELECOMMUNICATION INFORMATION:
TELEPHONE: 9779-683-2158
                                                                                                                                                                                                                                        Sequence 3, Application US/08603024 Patent No. 6015562 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 973-683-4117
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 399 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 322; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE: N. COUNTRY:
                                                                                                                                                                                                              US-08-603-024-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-603-024-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                RESULT 11
```

ö

ò g

ò 9 ò 9 à qq METHOD OF TREATMENT

INVENTION:

```
198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  336 AGTAGAGGTGAAGGCTGAGGATGTGGGTGTGTATTACTGTCAACAACTTGTAGAGTATCCA 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           156 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 TICCTGCAGAGGCCAGGGCAGTCTCCTCAGCTCCTGATATATCGGATGTCCAACCTTGCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               216 TTTCTGCAGAGACCAGGACAATCTCCTCAGCTCCTGATGTATTTGATGTCCACCCGTGCA 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96 GATATIGIGATAACCCAGGAIGAACICICCAAICCIGICACITCIGGAGAAICAGIIICC 155
                         181 TCAGGAGTCCCAGACAGGTTCAGTGGCAGTGGGTCAGGAACTGCTTTCACACTGAGAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 276 TCAGGAGTCTCAGACCGGTTTAGTGGCAGTGGGTCAGGCACAGATTTCACCCTGGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 248.4; DB 4; Length 339;
Pred. No. 8.8e-74;
0; Mismatches 56; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCACGTTCGGCTCGGGGACAAGTTGGAAATAAAACG 433
                                                                                                      GENERAL INFORMATION:
APPLICANT: Connie L. Erickson-Miller
APPLICANT: Stephen D. Holmes
APPLICANT: James D. Winkler
TITLE OF INVENTION: TIEZ Agonist Antibodies
FILE REFERENCE: P50843
CURRENT APPLICATION NUMBER: US/09/406,532A
CURRENT APPLICATION NUMBER: 06/102,098
PRIOR APPLICATION NUMBER: 60/102,098
                                                                                        TTCACGTTCGGCTCGGGGACAAGTTGGAAATAAAA 431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: (1)...(339)
OTHER INFORMATION: 13H10 light chain v region
                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 21
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                             Sequence 13, Application US/09406532A
Patent No. 6365154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3, Application US/08392419
Patent No. 5624659
GENERAL INFORMATION:
APPLICANT: Bigner, Darell D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zalutsky, Michael R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          56.8%;
illarity 83.4%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 282; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                  RESULT 13
US-09-406-532-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-406-532-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
US-08-392-419-3
                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 13
                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                         396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QΫ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                          q
                                 δ
                                                                                        δ
```

```
AAGACATACTTGAATTGGTTTCTGCAGAGCCAGGACAATCTCCCTCAGCTCCTGATGTAT 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            258 ITGATGTCCACCCGTGCATCAGGAGTCTCÄGACCGGTTTAGTGGCAGTGGGGTCAGGCACA 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           318 GATITCACCCTGGAAATCAGTAGAGTGAAGGCTGAGGATGTGGGGTGTGTATTACTGTCAA 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   78 ATCTCTGGAGTCAGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATCCTGTCACT 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   378 CAACTTGTAGAGTATCCATTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAACGTACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    54.9%; Score 240; DB 1; Length 882; nilarity 79.2%; Pred. No. 9.1e-71; Conservative 0; Mismatches 75; Indels
                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/392,419
FILING DATE:
CLASSIFICATION: 424
PROR APPLICATION NUMBER: US 08/033,827
FILING DATE: 19 MAR-1993
ATTONEY/AGENT INFORMATION:
ATTONEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       join(121..168, 527..874)
                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Sibley, Kenneth D.
REGISTRATION NUMBER: 31,665
REFERENCE/POCKET NUMBER: 5405-90
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919-420-2200
TELEFAX: 919-881-3175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 15
US-08-732-708C-40
; Sequence 40, Application US/08732708C
; Patent No. 6127524
                                                                                              CITY: Charlotte
STATE: No. 5624659th Carolina
COUNTRY: USA
                                                   b.O. Drawer 34009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 882 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear MOLECULE TYPE: CDNA
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
Matches 285; Conserv
                                                                                                                                                           ZIP: 28234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ), NAME/KEY:
; LOCATION:
US-08-392-419-3
                                                          ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
```

ö

437

```
ó;
GENERAL INFORMATION:
APPLICANT: Casipit, Clayton L.
APPLICANT: Wong, Hing C.
APPLICANT: WENG, HING C.
APPLICANT: WONG, HING C.
APPLICANT: WENG, BINDING MOLECULES AND COMPUTER-BASED
TITLE OF INVENTION: WETHODS OF INCREASING THE BINDING AFFINITY THEREOF NUMBER OF SEQUENCES: 49
CORRESPONDENCE ADDRESS:
ADDRESSEE: Dike, Bronstein, Roberts & Cushman, LLP
STREE: MA.
CITY: Boston
STATE: MA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       89 CAGTGGGGATATTGTGATAACCCAGGATGAACTCTCCAATGCTGTCACTTCTGGAGAATC 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     149 AGTTTCCATCTCCTGCAGGTCTAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTT 208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16 CAGCAGTGATATTGTGATGACTCAGCTGCACCTCCAATACTGTCACTGTGAGAGTC 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 54.0%; Score 236; DB 3; Length 373; Best Local Similarity 77.9%; Pred. No. 1.3e-69; Matches 272; Conservative 7; Mismatches 70; Indels
                                                                                                                                                                                                                                                                                                    COMPUTER READBLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IDA COMPATIBLE
OPERATING SYSTEM: DOS
SOFTWARE: FASIENCE OF WINDOWS VERSION
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/732,708C
FILING DATE: 18-0CT-1996
CLASSIFICATION DATA:
APPLICATION NUMBER: US/08/732,708C
FILING DATE: B-0CT-1996
TILING DATE: FILING DATE:
FILING DATE: FILING DATA:
APPLICATION NUMBER: 40,927
REFERENCE/DOCKET NUMBER: 46,91
TELEPHONE: 617-523-3400
TELEPHONE: 617-523-3400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Xaa is Arg, Ala, or Lys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Xaa is Tyr, Ala or Phe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Xaa is Phe, Ala or Tyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Xaa is His or Ala
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Xaa is Leu or Ala
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      40:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: Coding Sequence
; LCCATION: 22...371
; OTHER INFORMATION: EXON 1
US-08-732-708C-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 373 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: 96
OTHER INFORMATION:
LOCATION: 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION:
LOCATION: 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION:
LOCATION: 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: CDNA HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ANTI-SENSE: NO FRAGMENT TYPE: ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                     USA
                                                                                                                                                                                                                                                                                        02109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION:
                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Op
```

Search completed: April 26, 2003, 07:28:36 Job time: 20.1006 secs

```
April 26, 2003, 04:53:31; Search time 694.49 Seconds (without alignments) 14583.043 Million cell updates/sec
                                                                                                                                        US-09-674-716B-17
348
1 gatattgtgatgactcagtc.....agatcaaacgtacggtggct 348
                                                                                                                                                                                                                                                                 4109280
GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                    2054640 seqs, 14551402878 residues
                                                                                                                                                                                                                                                                                                                                   Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                         OM nucleic - nucleic search, using sw model
                                                                                                                                                                                               IDENTITY_NUC Gapoxt 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           em_htgo_mus:*
em_htgo_other:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               em_htg_hum:*
em_htg_inv:*
em_htg_other:*
em_htg_mus:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      em_htg_pln:*
em_htg_rod:*
em_htg_mam:*
em_htg_vrt:*
em_sy:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              em_htgo_hum:*
                                                                                                                                                                                                                                                                                             Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gb_sts:*
gb_sy:*
gb_un:*
gb_vi:*
em_ba:*
em_fun:*
em_in:*
em_in:*
em_on:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         em_sts:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      em_un:*
em_vi:*
                                                                                                                                                                                                                                                                                                                                                                                                         gb_ba:*
gb_in:*
gb_in:*
gb_on:*
gb_pa:*
gb_ph:*
gb_ph:*
gb_ph:*
gb_ph:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             em_pl:*
em_ro:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    em_ov:*
em_pat:
em_ph:*
                                                                                                                                                                                                                                                                                                                                                                                            GenEmbl:*
                                                                                                                                         Title:
Perfect score:
Sequence:
                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                            Database :
                                                                                                                                                                                                                                          Searched:
                                                                                      Run on:
```

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

۵	AXO10614 Sequence AXO10665 Sequence AXO76855 Sequence AXO7681 Sequence AXO7681 Sequence AXO7681 Sequence AXO7708 H Sapiens m X93702 H Sapiens m X93708 H Sapiens m X93709 H Sapiens m	A linear PAT 06-SEP-2000 , Ellis, J.H. and Shearin, J. of, and their therapeutic uses CROWE SCOTT JAMES (GB); RAPSON
SUMMAIID	6 AX010614 6 AX010645 6 AX076855 6 AX076855 9 HSA772080 9 HSA772080 9 HSA772080 9 HSTOP019 9 HSTOP019 9 HSTOP019 9 HSTOP019 9 HSTOP010 9 HSTOP206 9 HSTOP206 9 HSTOP206	ALIGNMENTS 348 bp DN tent W09958679. 425 s. A.J., Rapson, N.T derivatives there A 17 18-NOV-1999; MARCEL PAUL (FR);
% Query Match Length DB	3448 3448 3448 3440 3460	AX010614 Sequence 17 from Pater AX010614 AX010614.1 GI:999742; Synthetic construct. synthetic construct artificial sequences 1 (bases 1 to 348) Bonnefoy, JY. (Crowe, Antibodies to 0323, d Patent: WO 9958679-A BONNEFOY JEAN YVES MA
Result Core M	2	ESULT 1 X010614 OCOS EPTUTION CCESSION EFRETON EYWORDS OURCE ORGANISM ACTHORS TITLE JOURNAL
Re		

```
AX076853.1 GI:13121524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           synthetic construct
artificial sequences.
1 (bases 1 to 740)
Knick,V.C., Stimmel,J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           83.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 synthetic construct
                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Simil
Matches 313; C
                                         Best Local Sim
Matches 348;
                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                           48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Т
                                                                                                                                                                                                                                                                                                                                                                               RESULT 3
AX076853
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                  d
                                                                                                                          ά
                                                                                                                                                g
                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                         δ
                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                    οy
                                                                                                                                                                                                                                                                                                                                         QQ
                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                    /codon_start=1
/transl_table=11
/protein_id="c007533.1"
/db_xxef="c1:9907426"
/translation="DIVMTQSPLSLPVTPGEPASISCRSSKSLLYKDGKTYLNWYLQK
PGQSPQLLIYMSTRASGVPDRFSGSGSGTDFTLKISRVEAEDVGVYYCQQLVEYPFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 348)
BonnefOy,JY., Crowe,S.J., Rapson,N.T., Ellis,J.H. and Shearin,J.
Antibodies to cd23, derivatives thereof, and their therapeutic uses
Patent: WO 9958679-A 48 18 NOV-1999; CROWE SCOTT JAMES (GB); RAPSON
NICHOLAS TIMOTHY (GB); GLAXO GROUP LTD (GB); ELLIS JONATHAN HENRY
(GB); SHEARIN JEAN (US)

Location/Qualifiers

1 . 348
                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-SEP-2000
                                             /organism="synthetic construct"
/db_xref="taxon:32630"
/note="Humanised anti-CD23 antibody light chain variable
NICHOLAS TIMOTHY (GB); GLAXO GROUP LTD (GB); ELLIS JONATHAN HENRY (GB); SHEARIN JEAN (US) .
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="synthetic construct"
/db_xref="taxon:32630"
/note="Humanised anti-CD23 antibody light chain variable
                                                                                                                                                                                                                                                                                                                                     61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                    TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                   AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                      TCAGGGGTCCCTGACAGGTTCAGTGGCAGTCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PAT
                                                                                                                                                                                                                                              Length 348;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                        100.0%; Score 348; DB 6; L
100.0%; Pred. No. 9.2e-104;
ive 0; Mismatches 0;
                                                                                             <1. .>348
/note="unnamed protein product"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                         Ψ
                                                                                                                                                                                                         83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 48 from Patent W09958679.
AX010645
                                                                                                                                                                                                      97 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       87
                                                                                                                                                                                            FGQGTKVEIKRTVA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX010645.1 GI:9997454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            synthetic construct.
synthetic construct
artificial sequences.
                                                                                                                                                                                                      87 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        O
                                                                                                                                                                                                                                                                  Conservative
                                                                                    region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             region"
                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                         ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                      81
                                                                                                                                                                                                                                        Query Match
Best Local Simi
Matches 348;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 2
AX010645/c
LOCUS
                                                                                                                                                                                                      BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                             CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /codon_start=1
/trans_table=11
/protein_id="coa33380.1"
/db_xref="G1:13121525"
/db_xref="G1:13121525"
/trans_taton="MGWSCILLFLVATATGVHSDIVWTGSPLSLPVTPGEPASISCRS
SKNLLHSNGITYLYWTLORPEGOSPOLLITYOMSNLASGVPDRFSSSGGTDFTLKISRV
EABDVGYYZAONLEFRFGGGTKVETKRTVAAPSVFIFPPSDEDLKSGTASVVCLL
NNFYPREAKVOWKVDAALQSGNSQESVTEQDSKDSTYSLSSTLTLSKADYEKHKVYAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PAT 22-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                 \text{Knick}(V.C., Stimmel.J.B. and Thurmond,L.M.} Combination of an anti-ep-cam antibody with a chemotherapeutic
                                     Gaps
                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATATTGTGATGACTCAGTCTCCACTCCTGCCGTCACCCTGGAGAGCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                         49
                                                                                                                                                                                                                                                                ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                   121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA
                                                                                                                                                                                                                       228 TACCTGCAGAGAGCCAGGGCAGTCTCCACCTGATCTATTTGATGTCCACCCGGGCA
                                                                                                                                                                                                                                                                                                                                    241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA
                                                                1, GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCGTCACCCCTGGAGAGCCGGCCTCC
                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
 Length 348;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 740;
                                                                                                                                                                                                                                                                                                                                                                                                    301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                        DB 6;
9.2e-104;
                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 292; DB 6; I
Pred. No. 3.3e-85;
0; Mismatches 35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   construct"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA
Score 348; DE
Pred. No. 9.26
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent: WO 0107082-A 1 01-FEB-2001;
GLAXO GROUP LIMITED (GB)
Location/Qualifiers
1. 740
/Organism="synthetic constru/db_xref="taxon:32630"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       165 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Synthetic sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AX076853 740 bp
Sequence 1 from Patent W00107082.
AX076853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EVTHQGLSSPVTKSFNRGEC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       187 g
                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
100.0%;
100.0%;
```

```
87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C_region
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                V_segment
                                                                                                                                                                                                                                                                                                                                                                                                                                                          J_segment
                                                                                                                                                                                                                                                                                                                                                                                                                            V_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                           LOCUS
                                                                                              ORGANISM
                                                                                                                         REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                         MEDLINE
PUBMED
      RESULT 5
HSIGKLV46
                                                                                                                                                                                                      TITLE
JOURNAL
                                                       ACCESSION
                                                                 VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                     CDS
                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               οq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                οg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δŻ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                           PAT 22-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                          synthetic construct.
synthetic construct
artificial sequences.
I (bases 1 to 740)
Knick, V.C., Stimmel, J.B. and Thurmond, L.M.
Combination of an anti-ep-cam antibody with a chemotherapeutic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                      261 TCAGGGGTCCCTGACAGGTTCAGTAGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 320
                                                                                                                260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
         TACCIGCAGAAGCCAGGGCAGICTCCACAGCICCIGAICTATITGAIGICCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GATATIGIGATGACTCAGICICCACICTCCCTGCCCGICACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                201 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATCAGATGTCCAACCTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 740;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360 CGGACGTTCGGCCAAGGACCAAGGTGGAGATCAAACGTACGGTGGCT 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                       Indels
                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 292; DB 6; L
Pred. No. 3.3e-85;
0; Mismatches 35;
                                                                                                                                                                                                                                                                                                                                                                                      /organism="synthetic construct"
/db_xref="texon:32630"
note="Synthetic sequenc"
187 c 201 g 187 t
                                                                                                                                                                                                                            DNA
                                                                                                                                                                                                                                                                                                                                               Patent: WO 0107082-A 3 01-FEB-2001 GLAXO GROUP LIMITED (GB)
                                                                                                                                                                                                                        Sequence 3 from Patent WO0107082.
AX076855
                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                         AX076855.1 GI:13121526
                                                                                                                                                                                                                                                                                                                                                                                                                                                 83.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                               1. .740
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                       ಡ
                                                                                                                                                                                                                                                                                                                                                                                                                      165
                                                                                                                                                                                                                                                                                                                                          agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 313;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                          RESULT 4
AX076855/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
ORIGIN
                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                   JOURNAL
   61
                                       121
                                                                              181
                                                                                                                                                                                                                                                                     KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                           VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŏ
                                                                                                                                      Db
                                                                                                                                                           ŏ
                                                                                                                                                                           qq
                                                                                                 g
                                                                                                                    ò
                    g
                                                         qq
                                                                              δ
   δ
                                        οy
```

```
/translation="mrlpAqLigilmiwvsgssgdivmtqsplslpvypgepasiscr
ssqsilhsnoynyldwyldkpgqspqlliylgsnrasgvpdrfsgsgsgtdftkisr
veaedvgvyycmqalqtpwyfeqqctkveikrtvaa"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
HSICKLV46 410 bp mRNA linear PRI 31-JAN-1994 H.sapiens mRNA for rearranged Ig kappa light chain variable region (II:\frac{4}{2}).
                                                                                                                                                                                                                                   Zachau, H.G.
Direct Submission
Submitted (26-APR-1993) H.G. Zachau, Institut fuer Physiologische
Chemie, der Universitaet Muenchen, Schillerstr 44, 8000 Muenchen 2,
                                                                                                                                                                                                                                                                                                                         2 (bases 1 to 410)
Klein, R., Jaenichen, R. and Zachau, H.G.
Expressed human immunoglobulin Kappa genes and their hypermutation
Eur. J. Immunol. 23 (12), 3248-3262 (1993)
94080891
                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 410)
                                                                                                     J-segment; kappa light chain; V-region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 410;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /db_xref="taxon:9606"
/chromosome="2"
/clone="II.46"
/tissue_type="spleen"
/clone_lib="lambda zap II phage library"
/partial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /codon_start=1
/product="Ig kappa light chain (VJC)"
/protein_id="CAA51135.1"
/db_xref="GI-441403"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. 410
/product="Ig kappa light chain (VJC)"
/product="1g kappa light chain (VJC)"
361. 360
361. 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 277.6; DB 9;
Pred. No. 1.8e-80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          115 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361. .399
/note="J-Kappa 1"
                                                                  ×72467
X72467.1 GI:441402
C-region; immunoglobulin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /isolate="M.L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 79.8%;
Best Local Similarity 87.4%;
Matches 304; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       400. .410
108 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .410
                                                                                                                                Homo sapiens.
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ø
```

```
Homo sapiens
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
es 303; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ۵
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                X93771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                V_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PUBMED
                                                                                                                                                                                                                                                                                                                                                    RESULT 7
HSTOP003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                   g
                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δy
                          ò
                                                                                                                      ò
                                                                                                                                                                                                                          δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /evidence-experimental
/product-"immunoglobulin light chain variable region"
/protein_id="CAB75876.1"
/db_xref="G1:702457"
/db_xref="RE1:702457"
/db_xref="RENTEMBL:CAB75876"
/db_xref="RENTEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                PRI 16-NOV-2001
                                                                                                                                                                                                                                                                                                                                            AJ272080.1 GI:7024356
anti-F(ab')2; autoantibody; IGVL gene; immunoglobulin; light chain;
variable region.
                                                                                                                                                                                                                                                                   Homo sapiens partial mRNA for immunoglobulin light chain variable region -Anti-F(ab')2 autoantibody (IGVL gene), isolate SN3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Elagib, K.E., Borretzen, M., Vatn, I., Natvig, J.B. and Thompson, K.M. Characterization and V(H) sequences of human monoclonal anti-(fab')(2) autoantibodies from normals and Sjogren's syndrome patients
Clin. Immunol. 98 (1), 62-69 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (21-FEB-2000) Elagib K.E., Laboratory for Rheumatology Research, Institute of Immunology, Fr. Qvamsgate 1, N-172 Oslo,
61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 ATCTCCTGCAGGTCTAGTCAGAGCCTCCTGCATAGTAATGGATACAACTATTTGGATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GATATIGICATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 353;
                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /function="Anti-F(ab')2 autoantibody"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 276; DB 9;
Pred. No. 6.1e-80;
); Mismatches 45,
                                                                                                                                                                                                                                                     mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     85 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Clin. Immunol. 98 (1), 62-69 (2001)
20581399

    .353
    /organism="Homo sapiens"
/isolate="SN3"

                                                                                                                                                                                                                                                353 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FGQGTKVEIKRTVAAP'
94 c 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /gene="IGVL"
<1. .>353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /gene="IGVL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 79.3%;
Best Local Similarity 87.1%;
Matches 303; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 (bases 1 to 353)
Elagib, K.E.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /germline
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ø
                                                                                                                                                                                                                                                HSA272080
                                                                                                                                                                                                                                                                                                region -A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11141328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                               human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASE COUNT
                                                                                                                                                                                               RESULT 6
HSA272080
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                    VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
                        엄
                                                                      à
                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   င်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

```
nsrupeuds 460 bp mRNA linear PRI 25-NOV-1998 H.sapiens mRNA for kappa immunoglobulin light chain (V-J-C region; clone HSTOP003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (01-DEC-1995) Torben Barrington, Tissue Typing Laboratory 7631, Rigshospitalet, National University Hospital, Tagensvej 20, DK-2200 Copenhagen N. DENMARK (Dases I to 360) Barington, T., Hougs, L., Juul, L., Madsen, H.O., Ryder, L.P., Heilmann, C. and Svejgaard, A. The progeny of a single virgin B cell predominates the human recall B cell response to the capsular polysaccharide of Haemophilus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 360)
Barington. T.
Direct Submission
                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   X93771.1 GI:3928404
constant region; immunoglobulin; immunòglobulin kappa chain;
immunoglobulin light chain; joining region; variable region.
241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GATATTGTGATGACTCAGTCTCCCACTCTCCCCGGTCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         On Nov 26, 1998 this sequence version replaced gi:1296757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       chain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gene="V-kappa-A3/A19 and J-kappa-3"
/product="immunoglobulin kappa light chain'
/note="variable region and joining region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 360;
                                                                                                                                                                                                             301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                       CGTACGTTCGGCCAAGGGACCAAGGTGGAAATCAAACGAACTGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="V-kappa-A3/A19 and J-kappa-3"
<1. .339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         79.3%; Score 276; DB 9;
llarity 87.1%; Pred. No. 6.1e-80;
Conservative 0; Mismatches 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="peripheral blood"
/rearranged
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  influenzae type b
J. Immunol. 157 (9), 4016-4027 (1996)
97047794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              91 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /cell_type="B lymphocyte"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="constant region"
96 c 92 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /chromosome="2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone="TOP003"
```

ó

```
1 GATATTGTGATGACTCAGTCTCCACCCTGCCCGTCACCCCTGGAGAGCCGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            82
                                                                                                                                                                                                                                                                                                                                                                                           x93776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               V_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PUBMED
                                           61
                                                                                                                                                 181
                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                         RESULT 9
HSTOP019
                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE
                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                               qq
                                                                                                                      qq
                                                                                                                                                 QΥ
                                                                                                                                                                           qq
                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                        Qγ
                                           δλ
                                                                    qq
                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                       nsroruto
H.sapiens mRNA for kappa immunoglobulin light chain (V-J-C region;
clone HSTOPO16).
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
Submitted (01-DEC-1995) Torben Barrington, Tissue Typing Laboratory
7631, Rigshospitalet, National University Hospital, Tagensvej 20,
DK-2200 Copenhagen N, DENMARK
2 (bases 1 to 360)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      recall
                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 360)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                              240
                                                                                                            240
                                                                                                                                    241 AGCAGAGTGGAGGCTGAGGATGTTGGGGŢTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                   Barington T., Hougs, L., Juul, L., Madsen, H.O., Ryder, L.P., Heilmann, C. and Svejgaard, A.
The progeny of a single virgin B cell predominates the human r B cell response to the capsular polysaccharide of Haemophilus influenzae type b
J. Immunol. 157 (9), 4016-4027 (1996)
     61 ATCICCTGCAGGICTAGICAGAGCCTCCTGCATAGTAATGGAAATAACTATTTGGATTGG 120
                                                                                                                                                                                                                                                                                                                                         733774.1 GI:3928407 constant region; immunoglobulin kappa chain; immunoglobulin light chain; joining region; variable region.
                                                                                   181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                 181 TCCGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  On Nov 26, 1998 this sequence version replaced gi:1296760. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                          TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                        45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; DB 9;
6.1e-80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /cell_type="B lymphocyte"
/tissue_type="peripheral blood"
/rearranged
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 276; DB Pred. No. 6.1e-0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="constant region"
101 c 90 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone="TOP016"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 79.3%;
Best Local Similarity 87.1%;
Matches 303; Conservative
                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Barington, T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    V_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PUBMED
                                                                                                                                                                                                                                                             RESULT 8
HSTOP016
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                              VERSION
                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                               g
                                                                                                                                                               Op
                                                                                                                                                                                             δy
                                                                                                                                                                                                                     a
           g
                                                             g
                                                                                      δ
                                                                                                                                          δ
                                     δ
```

```
Submitted (01-DEC-1995) Torben Barrington, Tissue Typing Laboratory Submitted (01-DEC-1995) Torben Barrington, Tissue Typing Laboratory 7631, Rigshospitalet, National University Hospital, Tagensvej 20, DEK-2200 Copenhagen N, DENMARK 2 (bases 1 to 360)

Barington, T., Hougs, L., Juul, L., Madsen, H.O., Ryder, L.P., Heilmann, C. and Svejgaard, A. Heilmann, C. and Svejgaard, A. Heilmann, C. and single virgin B cell predominates the human recall B cell response to the capsular polysaccharide of Haemophilus influenzae type b

J. Immunol. 157 (9), 4016-4027 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nsluruly 360 bp mRNA linear PRI 25-NOV-1998 H.sapiens mRNA for kappa immunoglobulin light chain (V-J-C region; clone HSTOP019).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo. 1 (bases 1 to 360)
                                                                                                                                                                                                                                                                                                                      TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           constant region; immunoglobulin; immunoglobulin kappa chain; immunoglobulin light chain; joining region; variable region.
ATCICCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                         TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                            241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         On Nov 26, 1998 this sequence version replaced gi:1296762.

Location/Qualifiers
1. 360
/organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gene="V'kappa-A3/A19 and J-kappa-3"
/product="immunoglobulin kappa light chain"
/note="variable region and joining region"
                                                                                                                                                                                                                                                                                                                                                                                       /gene="V-kappa-A3/A19 and J-kappa-3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /cell_type="B lymphocyte"
/tissue_type="peripheral blood"
/rearranged
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        340. .>360
/note="constant_region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone="TOP019"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         X93776.1 GI:3928409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ,339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
Homo sapiens
```

ö

g

임 ò a

ò

q ð QQ õ g

ò

```
HSTOP205 360 bp mRNA linear PRI 25-NOV-1998 H.sapiens mRNA for kappa immunoglobulin light chain (V-J-C region;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Barington,7.

Direct Submission
Submitsed (1955) Torben Barrington, Tissue Typing Laboratory 7631, Rigshospitalet, National University Hospital, Tagensvej 20, DK-2200 Copenhagen N, DENMARK

2 (bases 1 to 360)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 (bases 1 to 360)
Barington, T., Hougs, L., Juul, L., Madsen, H.O., Ryder, L.P.,
Heilmann, C. and Svejgaard, A.
The progeny of a single virgin B cell predominates the human recall
B cell response to the capsular polysaccharide of Haemophilus
J. Immunol. 157 (9), 4016-4027 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Matazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 360)
                                                                                                                                                                                                                                                                                                                                                                                   181 TCCGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                          61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                   61 ATCTCCTGCAGGTCTAGTCAGAGCCTCCTGCATAGTAATGGCAACATCTATTTCGATTGG 120
                                                                                                                                                                                                                                                                                                                                                            121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTAATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                               9
                                                                                                                                                                                         9
                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       constant region; immunoglobulin; immunoglobulin kappa chain; immunoglobulin light chain; joining region; variable region.
                                                                                                                                                                                                                1 GATATTGTGATGACTCACTCTCCCTGCCCGTCACCCCTGGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                             181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       On Nov 26, 1998 this sequence version replaced gi:1296791 Location/Qualifiers
                                                                                                                                                   .;
0
                                                                                                        Length 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301 TTCACTTTCGGCCCTGGGACCAAGTGGATATCAAACGAACTGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /cell_type="B lymphocyte"
/tissue_type="peripheral blood"
/rearranged
1. .339
                                                                                                     Score 276; DB 9;
Pred. No. 6.1e-80;
0; Mismatches 45
                                             88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/db_xref="taxon:9606"
340. .>360
/note="constant region"
101 c 90 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone="TOP305"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /chromosome="2"
                                                                                                     Query Match 79.3%;
Best Local Similarity 87.1%;
Matches 303; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                X93805.1 GI:3928439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
Homo sapiens
                                             81 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                X93805
    C_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                             BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
HSTOP305
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
                                                                 ORIGIN
                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                              ÓΫ
                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission

Submitted (01-DEC-1995) Torben Barrington, Tissue Typing Laboratory 7631, Rigshospitalet, National University Hospital, Tagensvej 20, DK-2200 Copenhagen N. DENMARK

( Pases 1 to 360)

Barington, T., Hougs, L., Juul, L., Madsen, H.O., Ryder, L.P., Hellmann.C. and Svejgaard, A.

The progeny of a single virgin B cell predominates the human recall a sell response to the capsular polysaccharide of Haemophilus influenzae type b

J. Immunol. 157 (9), 4016-4027 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nsrov220
H.sapiens mRNA for kappa immunoglobulin light chain (V-J-C region;
clone HSTOP220).
                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 360)
Barington, T.
                                                                                                                                                                                           61 ATCTCCTGCAGGTCTAGGTCAGAGCCTCCAGCATAGTAATGGAAATAACTATTTGGATTGG 120
                                                                                                                                                                                                                                                      121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                          121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCTCTGATCTATTGGGTTCTAATCGGGCC 180
                                                                                                                                                                                                                                                                                                                                          181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                           241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                             Gaps
                                                                                                                            9
                                                                                   1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTTC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          X93792.1 GI:3928425
constant region; immunoglobulin; immunoglobulin kappa chain;
immunoglobulin light chain; joining region; variable region.
                                                                                                            1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCGTCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                On Nov 26, 1998 this sequence version replaced gi:1296778.
Location/Qualifiers
1. 360
/organism="Homo sapiens"
/db_xref="taxon:9606"
                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /product="immunoglobulin kappa light chain"
/note="variable region and joining region"
    Length 360;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 TTCACTTTCGGCCCTGGGACCAAAGTGGATATCAAACGAACTGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301 ITCACGITCGGCCAAGGGACCAAGGIGGAGATCAAACGIACGGIGGCI 348
                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /gene="V-kappa-A3/A19 and J-kappa-3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="V-kappa-A3/A19 and J-kappa-3"
                                             45;
  Score 276; DB 9;
Pred. No. 6.1e-80;
0; Mismatches 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /cell_type="8 lymphocyte"
/tissue_type="peripheral blood"
/rearranged
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone="TOP220"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /chromosome="2
Query Match 79.3%;
Best Local Similarity 87.1%;
Matches 303; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo saplens.
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97047794
8892635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          V_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 10
HSTOP220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOURCE
```

```
V_region
                                                                                                                                                                                       BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 13
HSIGKLV45
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                          gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                           QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QΩ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   οy
                                                                                                                                                                                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Barington, T., Hougs, L., Juul, L., Madsen, H.O., Ryder, L.P.,
Heilmann, C. and Svejgaard, A.
The progeny of a single virgin B cell predominates the human recall
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360 bp mRNA linear PRI 25-NOV-1998 immunoglobulin light chain (V-J-C region;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission
Submitted (01-DEC-1995) Torben Barrington, Tissue Typing Laboratory
7311, Rigshospitalet, National University Hospital, Tagensvej 20,
DK-2200 Copenhagen N, DENMARK
2 (bases 1 to 360)
                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 360)
Barington, T.
                                                                                                                                                                                                                                                                                                 61 ATCTCCTGCAGGTCTAGTCAGAGCCTCCTGCATAGTAATGGCAACATCTATTTCGATTGG 120
                                                                                                                                                                                                                                                                                                                                                            181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCÀCAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                    241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                            TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cell response to the capsular polysaccharide of Haemophilus
                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                       1 GATATIGIGATGACTCAGTCTCCACTCTCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      H. Sapiens mRNA for kappa immunoglobulin light chain (V-J-C recone HSTOP307).

X93807

X93807

X93807

Gonstant region; immunoglobulin; immunoglobulin kappa chain; immunoglobulin light chain; joining region; variable region. Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             On Nov 26, 1998 this sequence version replaced gi:1296793.
Location/Qualifiers
                                                                                                                                                                                            ô
                        /3. 339
/gene="V-kappa-A3/A19 and J-kappa-3"
/product="immunoglobulin kappa light chain"
/note="variable region and joining region"
340. >360.
                                                                                                                                                              Length 360;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ITCACGTICGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           45; Indels
/gene="V-kappa-A3/A19 and J-kappa-3"
<1. .339
                                                                                                                                                            Score 276; DB 9;
Pred. No. 6.1e-80;
0; Mismatches 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              influenzae type b
J. Immunol. 157 (9), 4016-4027 (1996)
97047794
                                                                                                                   88 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="2"
                                                                                                    "constant region"
1 c 90 g
                                                                                                                                                              79.38;
ilarity 87.18;
Conservative
                                                                                                                   101 c
                                                                                                        /note=
                                                                                                                                                              Query Match
Best Local Similarity
Matches 303; Conserv
                                                                                                                     ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HSTOP307
                                                                                       C_region
                            V_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                  BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
HSTOP307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                     Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
```

```
H. Sapiens mRNA for rearranged Ig kappa light chain variable region (II.25).

X72466. G: 4141400
C-region; immunoglobulin; J-segment; kappa light chain; V-region. Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (26-APR-1993) H.G. Zachau, Institut fuer Physiologische Chemie, der Universitaet Muenchen, Schillerstr 44, 8000 Muenchen 2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2—(bases 1 to 377)
Klein, R., Jaenichen, R. and Zachau, H.G.
Expressed human immunoglobulin kappa genes and their hypermutation
Eur. J. Immunol. 23 (12), 3248-3262 (1993)
94080891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia: Eutheria; Primates; Catarrhini; Hominidae; Homo.

2achau, H. G.

Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 ATCTCCTGCAGGTCTAGTCAGAGCCTCCTGCATAGTAATGGCAACATCTATTTCGATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GATATIGIGAIGACICAGICICCACICICCCIGCCGICACCCCIGGAGAGCCGGCCICC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 TCCGGGGTCCCTGACAGGTTCAGTGGCAGTGATATTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                1. .339 /--
/gene="V-kappa-A3/A19 and J-kappa-3"
<1. .339
/gene="V-kappa-A3/A19 and J-kappa-3"
/product="immunoglobulin kappa light chain"
/note="variable region and joining region"
340. .>360
                                                                                                                                                                                                                                                                                                                                DB 9; Length 360;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                             45; Indels
                                                                                                                                                                                                                                                                                                                                Query Match 79.3%; Score 276; DB 9; Best Local Similarity 87.1%; Pred. No. 6.1e-80; Matches 303; Conservative 0; Mismatches 45
                      /cell_type="B lymphocyte"
/tissue_type="peripheral blood"
/rearranged
                                                                                                                                                                                                                                                                88 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
1. .377
/organism="Homo sapiens"
                                                                                                                                                                                                                                            /note="constant region"
101 c 90 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /isolate="M.L."
/db_xref="taxon:9606"
/clone="TOP307"
                                                                                                                                                                                                                                                                        Ø
```

```
/Godon_start=3
/Godon_start=1
/product=1g kappa light chain (VJC)"
/product=1g kappa light chain (VJC)"
/db_xref="GI:3980119"
/db_xref="GI:3980119"
/translation="MGLMLMWSOSSGDIVWTQSPLSLPVTPGEPASISCRSSGSLH
/translation="MGLMLMWSOSPDIVATGSPLSLPVTPGEPASISCRSSGSLH
SNGYNYLDWYLQPPGGGSPGLIJTIGSNRASGVPDRFSGSGSGTDFTLKISRVBAEDVG
VYYCMQALQTPRTFGQGTKVEIKRTVAAPSCLS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HSTOP014 360 bp mRNA linear PRI 25-NOV-1998 H.sapiens mRNA for kappa immunoglobulin light chain (V-J-C region;
                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     102 ATCTCCTGCAGGTCTAGTCAGAGCCTCCTGCATAGTAATGGATACAACTAGTTGG 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       162 TACCTGCAGAGGCAGGCAGTCTCCACAGCTCCTGATCTATTTGGGTTCTAATCGGGCC 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             x93772 GI:3928405 xx3772.1 GI:3928405 constant region; immunoglobulin kappa chain; immunoglobulin light chain; joining region; variable region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 407;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       79.3%; Score 276; DB 9; Length 40°87.1%; Pred. No. 6.2e-80;
Live 0; Mismatches 45; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301 TTCACGTTCGGCCAAGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     342 CGGACGTTCGGCCAAGGGACCAAGGTGGAAATCAAACGAACTGTGGCT 389
                                                                                                                                                                  /tissue_type="spleen"
/clone_lib="lambda zap II phage library"
1. .407
                                                                                                                                                                                                                                                                                                                                                                                                1. .407
/product="1g kappa light chain (VJC)"
/product="380
/note="1,Kappa 1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      103 t
                                                                            /organism="Homo sapiens"
                                                                                           /isolate="M.L."
/db_xref="taxon:9606"
                                          Location/Qualiflers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  110 9
                                                                                                                                    /chromosome="2"
                                                                                                                                                    /clone="II.8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . .407
107 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 87.1
Matches 303; Conservative
                                                                                                                                                                                                                          /partial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
Homo sapiens
     94080891
8258341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        87
                                                                                                                                                                                                                                                                                                                                                                                                                                    V_segment
J_segment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C_region
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                    V_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local
                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
       MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 15
HSTOP014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
                                            FEATURES
                                                                                                                                                                                                       CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ολ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                 /translation="MLWYSGSSGDIVWTQSPLSLPVTPGEPASISCRSSOSLLHNNGY
NYLDWYLQKPGQSPQLLIYLGSNRASGVPDRFSGSGSGTDFTLKISRVEAEDVGVYYC
MQVLQIPLTFGGGTKVEIKRTVA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HSICKLV31 407 bp mRNA linear PRI 04-DEC-1998 H.saplens mRNA for rearranged Ig kappa light chain variable region (II.8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 407)
Klein, Jaenichen, R. and Zachau, H.G.
Expressed human immunoglobulin kappa genes and their hypermutation
Eur. J. Immunol. 23 (12), 3248-3262 (1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 407)
Zachau, H.G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Physiologische
8000 Muenchen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  X72452.1 GI:441372
C-region; immunoglobulin; J-segment; kappa light chain; V-region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGGTTCCTGATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCTGGAGAGCCGGCCTCC 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                Query Match 79.3%; Score 276; DB 9; Length 377; Best Local Similarity 87.1%; Pred. No. 6.1e-80; Matches 303; Conservative 0; Mismatches 45; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (26-APR-1993) H.G. Zachau, Institut fuer
Chemie, der Universitaet Muenchen, Schillerstr 44,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            330 CTCACTTTCGGCGGGGGCGGGACCAAGGTGGAGTTCAAACGAACTGTGGCT 377
/chromosome="2"
/clone="11.25"
/tissue_type="spleen"
/clone_lib="lambda_zap_II_phage_library"
1..377
                                                                                                                                                                                                                                    /product="Ig kappa light chain (VJC)"
                                                                                                         /codon_start=3
/prodoct="19 kappa light chain (VJC)"
/protein id="CAA51134.1"
/db_xref="GI:441401"
                                                                                                                                                                                                                                                                                                                                                 ų
                                                                                                                                                                                                                                                                                                                                                96
                                                                                                                                                                                                                                                          30. 329 4 Kappa
330. 368
/note="J-Kappa 4"
369. 377
                                                                                                                                                                                                                                                                                                                                              103 g
                                                                                                                                                                                                                                                                                                                            .377
95 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
                                                                                           /partial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human
                                                                                                                                                                                                                                                                                                                            C_region
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                           V_segment
                                                                                                                                                                                                                                                                                               J_segment
                                                                                                                                                                                                                                          V_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 14
HSIGKLV31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
```

ö

Q

us-09-674-716b-17.rge

```
Direct Submission

NL Submitted (01-DEC-1995) Torben Barrington, Tissue Typing Laboratory
7631, Rigshospitalet, National University Hospital, Tagensvej 20,
8 Heilmann,C. and Svejgaard,A.
8 Heilmann,C. and Svejgaard,A.
9 Johnson of a single virgin B cell predominates the human recall
8 cell response to the capsular polysaccharide of Haemophilus
9 Johnson Of Svejgaard,A.
9 Johnson Of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 ATCTCCTGCAGGTCTAGTCAGAGCCTCCTGCATAGTAATGGCAACATCTATTTCGATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GATATIGIGATGACTCAGICTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                             On Nov 26, 1998 this sequence version replaced gi:1296758 Location/Qualifiers
1. 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             78.9%; Score 274.4; DB 9; Length 360; 86.8%; Pred. No. 2.1e-79; tive 0; Mismatches 46; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /cell_type="B lymphocyte"
/tissue_type="peripheral blood"
/rearranged
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             88 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="constant region"
102 c 89 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone="TOP014"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /chromosome="2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 86.83
Matches 302; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                V_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BASE COUNT
ORIGIN
                   REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ
```

Search completed: April 26, 2003, 06:31:05 Job time: 696.74 secs

	. qws			
			·	
				·

```
Exkaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Manmalla; Butheria; Primates; Catarrhin; Hominidae; Homo.

2E 1 (bases 1 to 990)

RS NH+MGC http://mgc.nci.nih.gov/.

NHtional Institutes of Health, Mammalian Gene Collection (MGC)

AL Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov

Tissue Procurement: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Prepa
AA405415 zu56d02.r

AW405725 UT-FP-BLD

BW781161 K-EFP-0661

BF174573 MYE3409a

AM734036 Zu56002.y

BG755003 602714763

BG755003 602714763

BG73224 602568445

BG73224 602568445

BG530186 602568445

BG530186 60258684

BM22051 602463190

BG53018 60258684

BM22051 602463190

BG53018 60258684

BM22052 K-ESP0088

BG759215 marbigor

BF17421 MYE3134a

BF174421 MYE3134a

BF174421 MYE3134a

BF17606 MYE4339 M

BG75892 602172820

BF17506 MYE4339 M

BG75892 60212820

BF17506 MYE4339 M

BG75892 603143768

BG71007 AGENCOURT

BG71007 AGENCOURT

BG7592 603143768

BG756401 60271355

BG756401 602715272

AW405772 UT-HF-BLO

BG760187 BG71817272
                                                                                                                                                                                                                                                                                                                                                                                                                                                           BF174510 MYE3291a
BI824708 603033871
BI838136 603083638
BG547597 602575437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BI838327 990 bp mRNA linear EST 04-OCT-2001
603083265F1 NIH_MGC_120 Homo sapiens cDNA clone IMAGE:5222297 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ALIGNMENTS
                                                                                                                                                        BE829853
BE829853
BE126195
BF176195
BF174471
BO709417
BO709417
BO708918
BF86878
BF86878
BF86878
BF7565
BO708918
BO71007
BO758795
BO71007
BO758795
BF870113
BO711007
BO758795
BF870113
BF870113
BO711007
BO758795
                                                                                                                                                                                                                                                                                                                                                                                                                                     BQ708355
BG757255
BF174510
BI824708
BI838136
               AW405725
BM783161
BF174573
AW404683
                                                                             BG755003
BG75788
BG342051
BG536224
BG530186
BM820052
                                                                                                                                                                                                                                                                                                                                                                                                           AW405772
AW405187
  AA405415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mRNA sequence.
BI838327
BI838327.1 GI:15949877
                                                                                                                                                                                                                                                                                                                                                         422200422552
    human.
  RESULT 1
BI838327
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
    O
                                                                                                                                                                                                                                                                                           υ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B1838327 603083265
AW406883 UI-HF-BLO
BQ712430 AGENCOURT
BM511309 1j46b08.y
BG54248 602569513
AA464313 zx78c12.r
                                                                                       April 26, 2003, 04:55:21; search time 460.431 Seconds (without alignments) 12240.775 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                          348
1 gatattgtgatgactcagtc......agatcaaacgtacggtggct 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Description
                                                                                                                                                                                                                                                               32308132
               GenCore version 5.1.4_p5_4578
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                      16154066 seqs, 8097743376 residues
                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BI838327
AW406883
BQ712430
BM511309
BG542438
AA464313
                                                                   nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                          summaries
                                                                                                                                                                                                IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            em_gss_other:*
em_gss_pro:*
em_gss_rod:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ωī
                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 su
                                                                                                                                                                                                                                                                                       Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                             US-09-674-716B-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     em_gss_hum:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 em_gss_inv:*
em_gss_pln:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   em_gss_mus:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           em_gss_vrt:*
em_gss_fun:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   em_gss_mam:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   113
113
113
9
                                                                                                                                                                                                                                                                                                                                                                                                        em_esthum: *
em_estin: *
em_estin: *
em_estin: *
em_estip: *
em_estip: *
em_estip: *
em_esti: *
gb_esti: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                em_estfun:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           em_estom:*
                                                                                                                                                                                                                                                                                                                                                                                               em_estba:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       db_gss:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   990
454
995
522
751
363
                                                                                                                                                                                                                                                                                                                                                                                  EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 79.8
78.4
78.4
77.9
77.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 277.6
272.8
272.8
271.2
269.6
268.2
                                                                                                                                                           Perfect score:
                                                                   nucleic
                                                                                                                                                                        Sednence:
                                                                                                                                                                                                                                       Searched:
                                                                                                                                                                                                                                                                                                                                                                                  Database
                                                                                           Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
02
```

Gaps

ö

47; Indels

Length 454;

```
// Organism="Homo sapiens"
// Organism="Homo sapiens"
// Organism="Homo sapiens"
// Clone="IMAGE:3061493"
// Clone="IMAGE:3061493"
// Cell_Libe="NGHWD"
// Cell_Lipe="YerCes"
// Ab_host="NGCES"
// Ab_host="NGCES"
// Inderest from size fractionated cytoplasmic mRNA
(1.5-2.5kb). Directionally cloned. Cells provided by Louis
M. Staudt, Ph.D. Library preparation by Maria de Fatima
Bonaldo, Ph.D. and M. Bento Soares, Ph.D."
04 a 122 c 114 g 114 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGENCOURT_8352203 NIH_MGC_113 Homo saplens cDNA clone IMAGE:6277729 5', mRNA sequence.
BQ712430
BQ712430.1 G1:21851329
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 995)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov
Tissue Procurement: Dr. Mark Watson
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCM2464 row: j column: 02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCGGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196 TCCGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTACACTGAAAATC 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCGTCACCCTGGAGAGCCGGCCTCC 75
                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301 TICACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     316 CAGACGTTCGGCCAAGGACCAAGGTGGAAATCAAACGAACTGTGGCT 363
                                                                                                                                                                                                                                                                                                                                                             78.4%; Score 272.8; DB 10;
llarity 86.5%; Pred. No. 1.5e-71;
Conservative 0; Mismatches 47;
  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                      104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 human.
                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Simi
Matches 301;
                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 3
BQ712430
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
                                                                                                                                                                                                                                                                                                  BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AW406883 454 bp mRNA linear EST 16-FEB-2000 UI-HF-BLO-adg-h-03-0-UI.rl NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3061493 5', mRNA sequence.
AW406883. GI:6925940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo saplens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammallai; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 454)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                           þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCGGGGTCCCTGACAGGTTCAGTGGCAGTGAACAGGCACAGATTTTACACTGAAAATC 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Robert Strausberg, Ph.D.

Email: gapbs r@mail.nlh.gov

Eco RI site shown at the beginning of the sequence.

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

CDNA Library Preparation: M.B. Soares Lab

CDNA Library Arrayed by: M.B. Soares Lab

DNA Sequencing by: M.B. Soares Lab

Clone distribution: MC clone distribution information can be found through the I.M.A.G.E. Consortium/LINI at:

Www-bio.lini.gov/bbry/mage/limage.html

Seq primer: M13 Forward.
                                                                                                                                                                                                                                                                                                                                                                                                                     1 GATATTGTGATGACTCAGTCTCCACTCCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                       79.8%; Score 277.6; DB 13; Length 990; llarity 87.4%; Pred. No. 7.9e-73; Conservative 0; Mismatches 44; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT
/organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:522297"
/clone_lib="NIH_MGC_120"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                 241 q
                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                               234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human.
                                                                                                                                                                                                                                                                                                                                                                                304;
                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                               BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 2
AW406883
                                                                                                                                                                                                                                                                                                  ORIGIN
```

q

ò

q ò g á g ò g ò

```
GI:13534671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BG542438.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BG542438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 300;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 5
BG542438
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QΩ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1)46b08.yl Human insulinoma Homo sapiens cDNA clone IMAGE:5633990 5' similar to SW:KV2F.HUMAN P06310 IG KAPPA CHAIN V-II REGION RPMI BMS11309
                                                                                                                                                               /cloue_lib="NHLMGC_li3"
/lab_host="DH10B (phage-resistant)"
/lab_host="DH10B (phage-resistant)
/laboratory of Gerald M. Rubin (University of California,
/laboratory of California,
/laboratory of Gerald M. R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases I to 52)
Melton, D., Brown, J., Kenty, G., Permutt, A., Lee, C., Kaestner, K., Lemishka, I., Scearce, M., Brestelli, J., Gradwohl, G., Clifton, S., Hillier, L., Marra, M., Pape, D., Wylie, T., Martin, J., Blistain, A., Schmitt, A., Theising, B., Ritter, E., Ronko, I., Bennett, J., Cardenas, M., Gibbons, M., McCann, R., Cole, R., Tsagareishvili, R., Williams, T., Endocrine Poncreas Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    67 GATATTGTGATGACTCAGTCTCCACTCTGCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 TACCTGCAGAAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             187 TACCTGCAGAGAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGGGTTCTAATCGGGCC 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished (2000)
Other_ESTs: ij46b08.x1
Contact: Douglas Melton, Klaus H. Kaestner, & Hiroshi Inoue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 14; Length 995; 2e-71; as 47; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 TICACGITCGGCCAAGGGACCAAGGIGGAGATCAAACGIACGGIGGCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 272.8; D.; Pred. No. 2.2e-0; Mismatches
                                                                                  /organism="Homo sapiens"
/db_xref="taxon:9606"
ity sequence stop: 645.
Location/Qualifiers
                                                                                                                                      /clone="IMAGE:6277729"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Endocrine Pancreas Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BM511309.1 GI:18682452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 78.4%;
Best Local Similarity 86.5%;
Matches 301; Conservative
   High quality
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                numan.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 4
BM511309
LOCUS
DEFINITION
                                                                Source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏ
```

```
(http://genome.wustl.edu/est/lambda_protocol.shtml).
Please contact Hiroshi Inoue, MD/PhD for further information on this library (Metabolism Division, Permutt Laboratory, Washington University School of Medicine, Box 8127, 660 S Euclid Ave, St. Louis, MO 63110). Note: this is a Washington University Pancreas EST project library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BG542438 751 bp mRNA linear EST 03-APR-2001 602569513F1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:4694091 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone_limen_insulinoma"
/tissue_type="insulinoma"
/tissue_type="insulinoma"
/tissue_type="insulinoma"
/tissue_type="insulinoma"
/tissue_type="insulinoma"
/hab_host="both"
/note="organ: pancreas; Vector: pBluescript SK-; Site_1:
XhoI; Site_2: EcoRI; Constructed with lambda ZAPII system
(Stratagene) by Dr. J. Ferrer, in vivo mass-excised to
pBluescript SK- by Dr. H. Inoue following the Washington
University protocol
Harvard University, Howard Hughes Medical Institute
Dept of Molecular and Cellular Biology, 7 Divinity Ave, Cambridge,
MA 02138
Els 617-495-1812
Fax: 617-495-8557
Email: dmelton@biohp.harvard.edu
                                                                                                                                                                                     Library was constructed by Dr. J. Ferrer In vivo mass-excised to pBluescript SK- by Dr. H. Inoue DNA sequencing by. Washington University Genome Sequencing Center For information on obtaining clone please contact: Dr. Hiroshi Inoue (hinoue@im.wustl.edu) Seq primer: -40RP from Gibco High quality sequence stop: 429.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 AICTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          200 TACCTGCAGAAGCCAGGCAGTCTCCACAGCTCCTGATCTATTTGGGTTCTATTTGGCCC 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              140 ATCTCCTGCAGGTCTAGTCAGAGCCTCCTGTATACTAATGGATACAACTATTTGGATTGG 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCGGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GATATIGIGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 522;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      77.9%; Score 271.2; DB 1:
86.2%; Pred. No. 4.8e-71;
Live 0; Mismatches 48;
                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5633990"
```

GI:2189197

```
AA464313.1
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 297;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    259
                                     KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
           VERSION
                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. 751

/organism="Homo sapiens"
/db_xref="taxon:9606".
/clone="InAGE:4694091"
/clone="InAGE:4694091"
/clone="Inb="NIH_MGC_77"
/lab_host="NIH_MGC_77"
/lab_host="Digner: pubR-LIB (Clontech); Site_1:
/note="Organ: lung; Vector: pubR-LIB (Site_1: lung; Vector: l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               363 bp mRNA linear EST 10-JUN-1997 zx78cl2.rl Soares ovary tumor NbHOT Homo sapiens CDNA clone IMAGE:809878 5' similar to gb:x72467 IG KAPPA CHAIN PRECURSOR V-II AA464313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                 E I (Dases 1 Co /21)

S NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

L Unpublished (1999)

C Ontact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov
Tissue Procurement: CLONTECH Laboratories, Inc.

CDNA Library Preparation: CLONTECH Laboratories, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.lnl.gov
Plate: LLCM1517 row: i column: 04

High quality sequence stop: 737.
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 751)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCGTCACCCTGGAGAGCCGGCCTCC 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATATIGIGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGGCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 12; Length 751;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred No. 1.8e-70;
0; Mismatches 49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77.5%; Score 269.6; 85.9%; Pred. No. 1.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 85.9
Matches 299; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASE COUNT
ORIGIN
                                                                                AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 6
AA464313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        염
```

```
Hillier, L., Allen, M., Bowles, L., Dubuque, T., Geisel, G., Jost, S., Kuchaba, T., Lacy, M., Le, N., Lennon, G., Marra, M., Martin, J., Moore, B., Schellenberg, K., Steptoe, M., Tan, F., Theising, B., White, Y., Wylle, T., Waterston, R. and Wilson, R. Washly Marck EST Project 1997 (Unpublished (1997))
Contact: Wilson RK Washington University School of Medicine 4444 Profest Park Park School of Medicine 1314 286 1810

Fex: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                      Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                              Email: estewatson.wustl.edu
This clone is available royalty-free through LLNL ; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Seq primer: -28ml3 rev2 ET from Amersham.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 TACCTGCAGAGCCAGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 139 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGGGTTCTAATCGGGCC 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGGATCAGGCACAGATTTTACACTGAAAATC
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    77.1%; Score 268.2; DB 9; Length 363; 86.1%; Pred. No. 3.2e-70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTG 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/db_xref="GDB:6039712"
/db_xref="taxon:9606"
/clone="IMAGE:809878"
/clone_lib="Soares ovary tumor NbHOT"
/sex="Female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. 3.2e-70;
0; Mismatches 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
```

```
Lordanism="Homo sapiens"

[Jorganism="Homo sapiens"

[Adb_xref="taxon:9606"

[
                                                                                                                                                                                                                                                                                                                                                                                                   AW405725 488 bp mRNA linear EST 16-FEB-2000 UI-HF-BLO-abv-f-05-0-UI.rl NIH_MGC_37 Homo sapiens cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (Dases 1 to 488)
NIH-WGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: cgapbs-remail.nih.gov
Eco RI site shown at the beginning of the sequence.
Tissue Procurement: Louis M. Standt, M.D., Ph.D.
CDNA Library Preparation: M.B. Soares Lab
CDNA Library Arrayed by: M.B. Soares Lab
DNA Sequencing by: M.B. Soares Lab
Clone distribution: M.C. clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
Seq primer: M13 Forward
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     45 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          165 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGGGTTCTAATCGGGCC 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GATATIGIGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTGATGTCCACCCGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 488;
                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 268; DB 10;
Pred. No. 4.3e-70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              77.0%; Scor.
85.6%; Pred. No. 4...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                125 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            129 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AW405725.1 GI:6924782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     129 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       298; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ESE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                           RESULT 8
AW405725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QΥ
                                         q
                                                                                                                                                                                                             셤
                                                                                                                             δŻ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   / Organism="Homo sapiens"

/db_xref="GDB:594254"

/db_xref="GDB:594254"

/db_xref="Homo:5966"

/clone=lib="Soares ovary tumor NbHOT"

/clone=lib="Soares ovary tumor NbHOT"

/save_remal="

/issue_type="ovarian tumor"

/issue_soarian tumor

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostoml;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
11 (bases 1 to 442)
11 (bases 1 to 442)
11 (bases 1 to 442)
12 (bases 1 to 442)
13 (bases 1 to 442)
14 (bases 1 to 442)
15 (bases 1 to 442)
16 (bases 1 to 442)
17 (bases 1 to 442)
18 (bases 1 to 442)
1
                                                                               EST 09-NOV-1997
                           2256d02.r1 Soares ovary tumor NbHOT Homo sapiens CDNA clone IMAGE:741987 5' similar to gb:X72467 IG KAPPA CHAIN PRECURSOR V-II AA405415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tel: 314 286 1800
Fax: 314 286 1810
Enail: estéwatson.wustl.edu
This chone is avallable royalty-free through LLNL; contact the
This chone is avallable royalty-free through LLNL; contact the
This chone is avallable royalty-free through LLNL; contact the
This chone is avallable royalty-free through LLNL; contact the
This chone is avallable royalty-free through LLNL; contact information.
Insert Length: 1053 Std Error: 0.00
Seq primer: -28ml3 rev2 ET from Amersham.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGCCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TATCTGCAGAAGCCAGGCCAGTCTCCACAGCTCCTGATCTATTTGGGTTCTAATCGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                77.0%; Score 268; DB 9; Length 442; 85.6%; Pred. No. 4.1e-70; ive 0; Mismatches 50; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           118 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      114 g
                                                                                                                                                                                                                                                                                                 AA405415.1 GI:2063652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 M.Fatima I
120 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90
                                                                                                                                                                                                                                                                                                                                                                                                   uman.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Sim
Matches 298;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BASE COUNT
                                                                                             LOCUS
                                                                                                                                                                                                                                                           ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 261
                                                                                                                                                                                                                                                                                                                                           KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
RESULT 7
AA405415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
```

ó

ò g δ g δy QQ ò QQ ø

```
159 ATCTCCTGCAGGTCTAGTCAGAGCCTCCTACATAGTAATGGATACAACTATTTGAATTGG 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /tissue_type="Blood"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: k.stewart@utoronto.ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BF174573
BF174573,1 GI:13440787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 human,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 10
BF174573
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
                                                                                                                           g
                                                                                                                                                                                                                                                   QQ
                                                               δ
                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Anotes—Topics of the poly (A)+ RNA was dephosphorylated with bacterial alkaline phosphatase (BAP) and then decapped with tabacco acid pyrophosphatase (BAP) and then decapped with tabacco acid pyrophosphatase (TAP). The decapped intact mRNA was ligated with DNA-RNA linker including ECOR I site by treatment of T4 RNA ligase and the first strand cDNA was synthesized from oligo dT-selected mRNA by priming with dT-tailed vector. The CDNA vector was adjusted to have about 60nt. The CDNA vector was acircularized with E. coli DNA ligase after digestion of ECORI which site is also included in vector. An RNA strand converted to a DNA strand by CNAyama EBES method. The CDNA vectors were obtained cDNA vectors were used for transformation of competent cells E. coli ToplOF' by electroporation method. The CDNA libraries constructed by this method are full-length enriched CDNA library."
                                                                                                                                                                                                                                                                                                                             K-EST0061018 S18N669761 Homo sapiens CDNA clone S18N669761-3-E01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutherlai Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 634)
Kim,N.S., Hahn,Y., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M.R., Oh,J.H., Lee,J.Y., Ahn,H.Y., Chu,M.Y., Kim,M.R., Cheong,J.E., Sohn,H.Y., Kim,J.M., Park,H.S., Kim,S. and Kim,Y.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                   61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GATATTGTGATGACTCAGTCTCCACTCTCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished (2002)
Contact: Kim YS
S2 Ecoun-dong Yuseong qu, Daejeon 305-333, South Korea
Tal: +82-42-860-4470
Fax: +82-42-860-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           77.0%; Score 268; DB 14; Length 634; 85.6%; Pred. No. 4.9e-70; ive 0; Mismatches 50; Indels
                                                                                                                                                                  301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="S18N669761-3-E01"
/clone_lib="S18N669761"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /lab_host-"Top10F'"
                                                                                                                                                                                                                                                                                                                                                                                                                                              BM783161
BM783161.1 GI:19131393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 85.6
Matches 298; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   153 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                         LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                          RESULT 9
BM783161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                        qq
                                                                                                                           ò
                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
Notes Vector: Landada Zap Express; Site_1: ECORI; Site_2:
Xho1: Myeloma cells from multiple myeloma patients' bone
marrow were purified by magnetic cell sorting. mRNA were
purified and an oligo d(T)18 primer containing XhoI
restriction site was used to prime first strand synthesis
using M-MLV reverse transcriptase. To protect the cDNAs
from Xho1 disestion in subsequent cloning step, the
nucleotide analogue 5-methyl-dCTP was added to monitor
the quantity and quality of first strand synthesis. After
second-strand synthesis and blunting of CDNA termini,
ECORI adapters were ligated, followed by kinase treatment
and digestion with Xho1. The CDNAs were then
size-fractionated using Sephacryl S-500 column and then
ligated into ECORI and XhoI digested Landad Zap Express
vector. The ligation product was packaged using digapack
II packaging extract. The library had primary titre of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EST 23-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 491)

Claudio, J.O., Tang, H., Khan, E.M., Voralia, M., Li, Z., Cukerman, E., Franciso-Pabalan, O., Liew, C.C. and Stewart, A.K.

The transcriptional phenotype of myeloma cells

Contact: A. Keith Stewart, M.D.
                                                                                                                                                                                     121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                           TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                          241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                         University Health Network
600 University Ave., 5-126, Toronto, Ontario, MSG 2M9, Canada
Tel: (416) 946-439
Fax: (416) 946-6546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BF174573 491 bp mRNA linear EST 23-1
MYE3409a Myeloma (MYE) cDNA library Homo saplens cDNA, mRNA
                                              301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
399 CGGACGTCGGCCAAGGGACCAAGGTGAAATCAAACTAGTGGT 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BACKWARD: 5'-CCAGTGAATTGTAATACGACTCACTATAGGGCG-3'
Seg primer: 5'-GAAATTAACCCTCACTAAAGG-3'.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone_lib="Myeloma (MYE) cDNA library"
/sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PCR PRimers
FORWARD: 5'-GCCAAGCTCGAAATTAACCCTCACTAAAGGG-3'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /cell_type="myeloma"
/dev_stage="multiple myeloma"
```

```
human.
                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
                                                BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
AI734035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOURCE
                                                              ORIGIN
                                                                                                                                                                                          q
                                                                                                                                                                                                                           Óγ
                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                        ŏλ
                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                       δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ōλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pp
                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-FEB-2000
clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1. (bases 1 to 456)
NH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /oranism="Homo sapiens"
/db_xref='taxon:9606"
/db_axref='taxon:9606"
/clone='line='n158464"
/clone_line='n174566"
/tissue_type="lymph"
/cell_line='m2605"
/cell_line='m2605"
/lab_host='BH108 (rII)"
/note="Vector: pT7T3-pac; Site_l: NotI: Site_2: Eco RI;
Constructed from size fractionated cytoplasmic mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  рe
                                                                                                                                                                81 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 140
                                                                                                                                                                                                                                                                                                                                                          ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                           TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                         TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                       241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGGTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
approx, 1x106. Clones from the primary library were randomly selected for single pass sequencing." 136 c 128 g 124 t l others
                                                                                                                                             1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Eco Ri site shown at the beginning of the sequence.
Eco Ri site shown at the beginning of the sequence.
ECOR Library Preparation: M.B. Scares Lab
CDNA Library Preparation: M.B. Scares Lab
DNA Sequencing by: M.B. Scares Lab
Clone distribution: MGC clone distribution information can it cloud through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
Seq primer: Mi3 Forward
                                                                                                                                                                                                                                                                                             AW404683 456 bp mRNA linear EST UI-HF-BLO-acd-a-01-0-UI.rl NIH_MGC_37 Homo sapiens cDNA IMAGE:3058464 5', mRNA sequence.
                                                                                                               ;
0
                                                                                Length 491;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCACGTTCGGCCAAGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                               51; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181 CAGACTTTTGGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCT
                                                                              Score 267; DB 12;
Pred. No. 8.6e-70;
0; Mismatches 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AW404683
AW404683.1 GI:6923740
                                                                              76.78;
85.38;
                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                               Similarity
                                  Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     human.
                                                                                               Best Local Sim:
Matches 297;
                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                             BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                       321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 11
AW404683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
                                                                                                                                                                          셤
                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                              ò
                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
(1.5-2.5kb). Directionally cloned. Cells provided by Louis M. Staudt, Ph.D. Library preparation by Maria de Fatima Bonaldo, Ph.D. and M. Bento Soares, Ph.D."
                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EST 24-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Other_ESTS: 205602.s1
Contact: Robert Strausberg, Ph.D.
Email: cgapbs r@mail.nih.gov
This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further, information.
This read is a RESEQUENCE of a previously sequenced human clone Original clone citation: Washy-NCI human EST Project
This read has been verified (found to hit its original self in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               zu56d02.y5 Soares ovary tumor NHOT Homo sapiens cDNA clone
IMAGE:741987 5' similar to gb:X72467 IG KAPPA CHAIN PRECURSOR V-II
REGION (HUMAN);, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 425)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 TACCTGCAGAAGCCAGGGCAGTCTCCACGGTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                      61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                  80
                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                               21 GATATTGTGATGACTCAGTCTCCACTCTCCCTCCCCGTCACCCTGGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   201 TCCGGGGTCCCTGACAGGTTCAGTGGCAGTGCGTCAGGCACAGATTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                  Score 266.4; DB 10; Length 456;
Pred. No. 1.3e-69;
0; Mismatches 51; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCACGTTCGGCCAAGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone_lib="Soares ovary tumor NbHOT"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /tissue_type="ovarian tumor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            425 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /db_xref="GDB:5942254"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Insert Length: 1053 Std Errc
Seg primer: -40RP from Gibco.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /sex="Female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AI734035.1 GI:5055148
                                                                                                                                                  76.6%;
ilarity 85.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tumor Gene Index
Unpublished (1997)
                                                                                                                                                                              Best Local Similarity
Matches 297; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AI734035
```

Gaps

250 240 310

120

130

```
/clone_lib="NIH_WOLG_48"
/clone_lib="NIH_WOLG_48"
/tissue_type="primary B-cells from tonsils (cell line)"
/lab_host="pulloB (phage resistant)"
/note="pulloB (phage) vector: poTB7; Site_1: XhoI;
/note="pulloB (phage) vector: poTB7; Site_2: SoObp for average insert size 1: 8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies).
// Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BG757588 11near EST 15-MAY-2001 602714763F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4855095 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 880)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

CDNA Library Preparation: Ling Hong/Rubin Laboratory

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

plate: LLCAHIT/3 row: m column: 16

High quality sequence stop: 718.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          131 ATCTCCTGCAGGTCTAGTCAGAGCCTCCTGCATAGCAATGGATACACCTATTTGGATTGG 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                   DB 12; Length 880;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                               52; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 264.8; DB 1
Pred. No. 5.4e-69;
0; Mismatches 52
  /clone="IMAGE:4851723"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BG757588.1 GI:14068241
                                                                                                                                                                                                                                                                                                                                                                                                             76.1%;
1larity 85.1%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA sequence.
BG757588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 296;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EST
                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                     BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
BG757588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 880)

1 Inthick at the second of the second 
                ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BG755003 880 bp mRNA linear EST 15-MAY-2001 602711509F1 NIH_MGC_48 Homo sapiens chNA clone IMAGE:4851723 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 TACCTGCAGAAGCCAGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                      1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               261 recegegreecreacaggreeagreecagreearcaggeacragaritracacreaaaare
                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                     Length 425;
                                                                                                                                                                                                                                                                                                                                                                                    50; Indels
(ampicillin resistant)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301 TTCACGTTCGGCCAAGGACCAAGGTGGAGATCAAACGTACGGTG 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACACTTTTGGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTG 425
                                                                                                                                                                                                                                                                                                                               Score 265; DB 9;
Pred. No. 3.2e-69;
0; Mismatches 50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mRNA sequence.
BG755003
BG755003.1 GI:14065656
                                                                                                                                                                                                                                                                                                                                  76.1%;
85.5%;
                                                                                                                                                                                                                                                                                                                                                           Similarity 85.5
95; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human.
                                                                                                                                                                                                                                                                                                                                                                                    Matches 295;
                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
                                                                                                                                                                                                                                                       BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 13
BG755003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
```

us-09-674-716b-17.rst

```
221
                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŏλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
                                                /clone="Index:48505"
/clone="Index:48505"
/clone="Index:48505"
/clone=Inb="NIH_MGC_48"
/tissue_type="primary Becells from tonsils (cell line)"
/lab host="DH10B (phage-resistant)"
/note="Organ: B-cells; Vector: pOTB7; Site_1: XhOI;
Site_2: EcoRI; cDNA made by oilyo-dT priming.
Directionally cloned into EcoRI/XhOI sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library." I others
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EST 27-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 926)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            рę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    191 TACCTGCAGAGCCGGGCAGTCTCCACAACTCCTGATCTATTTGGGTTCTAATCGGGCC 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71 GAAATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NIH MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BG342051 926 bp mRNA linear EST 27-FE 602463190F1 NIH_MGC_48 Homo sapiens CDNA clone IMAGE:4575718 mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: cgapbs:r@mail.nib.gov
Tissue Procurement: Louis M. Staudt, M.D., Ph.D.
Tissue Procurement: Louis M. Staudt, M.D., Ph.D.
CDNA Library Preparation: Ling Hong/Rubin Laboratory
CDNA Library Parayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
                                                                                                                                                                                                                                                                                                                                                                                                             880;
                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                           DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                           Score 264.8; DB 12;
Pred. No. 5.4e-69;.
0; Mismatches 52;
1. .880
/organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BG342051.1 GI:13148477
                                                                                                                                                                                                                                                                                                                                                                                                             76.1%;
85.1%;
                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 76.1
Best Local Similarity 85.1
Matches 296; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      namau.
  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                            BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 15
BG342051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
```

ŏ

δ 셤 δ Ŷ

```
/clone="Indext. caxous. sov."
/clone="Indext. caxous. sov."
/clone="Indext. caxous. sov."
/clone="Indext. caxous. sov."
/tissue_type="primary B coells from tonsils (cell line)"
/lab_host="DHIOB (phage-resistant)"
/note="Organ: B-cells; Vector: pOTB7; Site_1: XhOI;
Site_2: EcoRI; cDNA made by oligo-dT priming.
Directionally cloned into EcoRI/XhOI sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp
for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit
(Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGACCGGCCTCC 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 ATCTCCTGTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 AGCAGAGTGGAGGTTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  141 ATCTCCTGCAGGTCTAGTCAGAGCCTCCTGTAT---GATGGATACAACTATTAGGATTGG 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GATATIGIGATGACTCAGTCTCCACTCTCCCCGTCCCCGTCGCCGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   m
..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 12; Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   42; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 264.8; DB 1
Pred. No. 5.6e-69;
0; Mismatches 42
column: 23
                                                                                                               /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Search completed: April 26, 2003, 07:26:47 Job time: 464.431 secs
Plate: LLCM1287 row: d colu
High quality sequence stop: 5
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 76.1%;
Best Local Similarity 87.1%;
Matches 303; Conservative (
```

		<del></del>
•		
·		
	,	
		•

```
April 26, 2003, 04:50:01; Search time 70.0118 Seconds (without alignments) 11193.756 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1980.DAT:*
SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1981.DAT:*
SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1982.DAT:*
SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*
SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1984.DAT:*
SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1985.DAT:*
SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1985.DAT:*
SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1988.DAT:*
SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1988.DAT:*
SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1988.DAT:*
SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1989.DAT:*
SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1989.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                             1 gatattgtgatgactcagtc.....agatcaaacgtacggtggct 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /SIDS2/gcgdata/geneseq/geneseqn-embl/NA2001A.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl/NA2001B.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . DAT: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1994.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1995.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1996.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DAT: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2002.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DAT: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /SIDS2/gcgdata/geneseq/genesegn-emb1/NA1998.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /SIDS2/gcgdata/geneseq/geneseqn-embl/NA2000.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /SIDS2/gcgdata/geneseg/genesegn-emb1/NA1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /SIDS2/gcgdata/geneseq/genesegn-embl/NA1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /SIDS2/gcgdata/geneseg/genesegn-emb1/NA199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /SIDS2/gcgdata/geneseq/genesegn-emb1/NA199
GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2185239 seqs, 1125999159 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Maximum Match 100%
Listing first 45 summarles
                                                                                                                               OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N_Geneseq_101002:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Post-processing: Minimum Match 0%
                                                                                                                                                                                                                                                                                                                            US-09-674-716B-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IDENTITY_NUC
                                                                                                                                                                                                                                                                                                                                                                  348
                                                                                                                                                                                                                                                                                                                                                                  Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Database :
                                                                                                                                                                                                                                                                                                                                                                                             Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Searched:
                                                                                                                                                                                                Run on:
                                                                                                                                                                                                                                                                                                                               Title:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		Description	Humanised anti-CD2	Humanised 323/A3 (	Anti-Ep-CAM antibo	Human bladder tumo	Human PTHrP monocl				
		D	L AA234747	2 AAF63373	2 AAF63377	) AAZ24418	l AAA13927	l AAA13924	1 AAA13925	1 AAA13928	1 AAA13920
		Match Length DB ID	348 2	740 2:	740 2:	772 20	720 2	720 2	720 2	720 2	720 2
æ	Query	Match	100.0	83.9	83,9	79.3	78.7	78.4	78.4	78.3	78.1
		Score		292	292	276	274	273	272.8	272.4	271.8
	Result	NO.	1	7	3	4	2	9	7	8	6

moon moon moon moon moon moon moon moon	ng th Fas Fas ng co ng fi
AAA13926 AAA13923 AAA139393 AAA78267 AAA33997 AAA78267 AAA78267 AAA78267 AAA78267 AAA78268	AAV09791 AAV61362 AAA78270 ABK43188 ABK43191 ABK43192
71111122222122222222222222222222222222	19 24 24 24
77777777777777777777777777777777777777	340 720 720 793 1111
0.000 0.000	0000000
2225690 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	243.6 242.4 242.4 242 242
0111 0111 0112 0113 0113 0113 013 013 013 013 013 013	444 444 443 5

## ALIGNMENTS

```
CD23; FCERII; IgE receptor; monoclonal antibody; C11; mouse; human; monoclonal antibody; chimeric antibody; humanised antibody; complementarity determining region; CBR; autoimmune disease; inflammation; arthritis; lupus erythematosus; multiple sclerosis; Hashimoto's thyroiditis; diabetes; uveitis; dermatitis; psoriasis; urticaria; nephrotic syndrome; glomerulonephritis; crohn's inflammatory bowel disease; ulcerative colitis; Crohn's disease; Sjogren's syndrome; allegy; asthma; rhinitis; eczema; insulitis; graft versus-host disease; COPD; bronchitis; diabetes;
                                                                                                                        Humanised anti-CD23 MAb C11 light chain variable region CDNA.
                           AAZ34747 standard; cDNA; 348 BP.
                                                                                                                                                                                                                                                                                                    B-cell malignancy; therapy; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-GB01434.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98GB-0009839.
                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                               W09958679-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                           07-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-MAY-1998;
                                                                                          15-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                            18-NOV-1999
                                                            AAZ34747;
RESULT 1
              AAZ34747
```

~

```
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                         This DNA sequence encodes the light chain variable region (VL) of humanised anti-CD23 (FCERII) monoclonal antibody Cl1, composed of a human framework (HSIGNII) and the light chain complementarity determining regions (see AAV3254-56) of murine antibody Cl1. The DNA was constructed by splice overlap PCR. The invention provides altered antibodies, such as chain acid sequences of the Cl1 light comprise sufficient of the amino acid sequences of the Cl1 light and heavy chain complementarity determining regions to render them capable of binding to the CD23 type II molecule expressed on haematopoietic cells. The antibodies are used to block soluble CD23 formation in human therapy, for the treatment of arthritis, lupus erythematosus, Hashimoto's thyroiditis, unlitiple solerosis, diabetes, uveitis, dermaitis, psoriasis, uriticaria, nephrotic syndrome, glomerulonephritis, inflammatory bowel disease, ulcerative collitis, Crohn's disease, Sjogren's syndrome, allergies, allergic asthma, intrinsic asthma, acute asthmatic exacerbation, rhinitis, eczema, graft-versus-host disease, COPD, insulitis, bronchitis (particularly chronic bronchitis) or diabetes (particularly type I chatterial and B-cell malignandes (Claimed). They are also useful disease, in the province and various ligands and entering and particularly representations.
                                                                                   Cell receptor specific antibodies useful for treating {\tt e.g.} arthritis, diabetes, multiple sclerosis and psoriasis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 348;
                           Shearin J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 348 BP; 81 A; 87 C; 97 G; 83 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 348; DB 21;
Pred. No. 6.1e-98;
                         Rapson NT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                         Ellis JH,
                                                                                                                        Claim 17; Fig 3; 81pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAF63373 standard; cDNA; 740 BP
                                                                                                                                                                                                                                                                                                                                                                                   for studying interactions were determining the binding agents.
                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                        SJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 100. Matches 348; Conservative
(GLAX ) GLAXO GROUP LTD.
                        Crowe
                                              2000-053101/04.
                                                             P-PSDB; AAY32262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAF63373;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAF6337.
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
```

```
This invention relates to a combination of an anti-Ep-CAM (cyclic adenosine monophosphate) antibody with a chemotherapeutic agent, that is capable of arresting Ep-CAM antigen expressing cells in the synthesis (S) phase or the second growth phase (M) of cell enlargement (G2)/DNA replication. The antibody exhibits cytostatic activity and is useful in the manufacture of a medicament for use in anti-cancer therapy, characterised in that a chemotherapeutic agent, which is capable of arresting Ep-CAM antigen expressing cells in S or in G2/M, is co-administered to a patient with an anti-Ep-CAM antibody. The combination is useful for treating cancer, prostate cancer or non-small-cell lung cancer. The present sequence represents cDNA encoding the light chain of anti-Ep-CAM antibody known as humanised 323/A33 (IgG1) which can be used in the combination of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Combination for treating cancer (e.g. breast, gastric or prostate cancers), or in the manufacture of a medicament for anti-cancer therapy, comprises an anti-Ep-cyclic adenosine monophosphate antibody
                                                      Anti-Ep-CAM antibody; cyclic adenosine monophosphate; cell synthesis; chemotherapeutic agent; cytostatic; anti-cancer therapy; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 ATCTCCTGTCGCTCCAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TACCTGCAGAAGCCAGGCAGTCTCCACAGCTCCTGATCTATCAGATGTCCAACCTTGCC 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 740;
Humanised 323/A3 (IgG1) antibody light chain cDNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 TICACGITCGGCCAAGGGACCAAGGIGGAGAICAAACGIACGGIGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 740 BP; 187 A; 201 C; 187 G; 165 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 292; DB 22;
Pred. No. 1.8e-80;
0; Mismatches 35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Thurmond LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 6; Fig 15; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            therapy, comprises an anti-Ep-
with a chemotherapeutic agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 83.9%;
                                                                                                                                                                                                                                                                                                                                                                              99WO-EP05271.
                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-EP05271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GROUP LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Stimmel JB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-182729/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
Matches 313; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P-PSDB; AAB72227
                                                                                                                   light chain; ss
                                                                                                                                                                                                                                                             WO200107082-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLAX ) GLAXO
                                                                                                                                                                          Mus sp.
Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                              23-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                    23-JUL-1999;
                                                                                                                                                                                                                                                                                                                       01-FEB-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Knick VC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ōλ
```

; ;

Sat Apr 26 08:30:46 2003

g

313

```
_{\rm new} nucleic acid sequences expressed in bladder tumor tissue, and derived polypeptides, for treatment of bladder tumor and identification of therapeutic agents .
                                                                                                                        Expressed sequence tag; human; bladder; tumour; cancer; cytostatic;
                                                                                         AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA
                                                                                                                                                                                                                                        360 CGGACGTTCGGCCAAGGGACCAAGGTGGAATCAAACGTACGGTGGCT
                                                                                                                                                                                                            301 ITCACGITCGGCCAAGGGACCAAGGIGGAGAICAAACGIACGGIGGCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human bladder tumour cDNA library derived EST 30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (META-) METAGEN GES GENOMFORSCHUNG MBH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hinzmann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         treatment; gene therapy; EST; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 3; Page 84; 132pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                  AAZ24418 standard; cDNA; 772 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98DE-1018619.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 772 BP; 181 A; 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98DE-1018619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         303; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Specht T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1999-612028/53.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DE19818619-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rosenthal A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-0CT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAZ24418;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                              480
                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                      AAZ24418
                                                                                                                                                                                                                                                                                                                                                             RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME OF THE PROPERTY OF THE PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δλ
                                                                                         οy
                                                                                                                                              g
                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This invention relates to a combination of an anti-Ep-CAM (cyclic adenosine monophosphate) antibody with a chemotherapeutic agent, that is capable of arresting Ep-CAM antigen expressing cells in the synthesis (5) phase or the second growth phase (M) of cell enlargement (G2)/DNA replication. The antibody exhibits cytostatic activity and is useful in the manufacture of a medicament for use in anti-cancer therapy, characterised in that a chemotherapeutic agent, which is capable of arresting Ep-CAM antigen expressing cells in S or in G2/M, is co-administered to a patient with an anti-Ep-CAM antigody. The combination is useful for treating cancer, particularly colorectal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Combination for treating cancer (e.g. breast, gastric or prostate cancers), or in the manufacture of a medicament for anti-cancer therapy, comprises an anti-Ep-cyclic adenosine monophosphate antibody with a chemotherapeutic agent \dot{}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cell synthesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                  Anti-Ep-CAM antibody, cyclic adenosine monophosphate; cell synthesis chemotherapeutic agent; cytostatic; anti-cancer therapy; cancer; ds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    lung cancer. The present sequence represents DNA related to the anti-Ep-CAM antibody used in the combination of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      83.9%; Score.292; DB 22; Length 740;
89.9%; Pred. No. 1.8e-80;
tive · 0; Mismatches 35; Indels
Sequence 740 BP; 165 A; 187 C; 201 G; 187 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                          Anti-Ep-CAM antibody related DNA sequence SEQ ID 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Thurmond LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Page 66; 103pp; English.
                                                                                                                                                                                BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-EP05271.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-EP05271.
                                                                                                                                                                             AAF63377 standard; DNA; 740
                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLAX ) GLAXO GROUP LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Stimmel JB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-182729/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
nes 313; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200107082-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unidentified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-JUL-1999;
                                                                                                                                                                                                                                                                                                   10-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Knick VC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                     AAF63377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                  RESULT 3
                                                                                                                                                    AAF63377,
```

Ä

Dahl

; Schmitt A, Pilarsky C,

```
This invention describes novel polypeptide fragments (I) and the polynucleotides (II) that encode them that are highly expressed in a human bladder tumour and which have cytostatic activity. (II) are used for recombinant expression of (I) and to isolate complete genes. (I) are used to identify agents suitable for treatment of bladder cancer, to directly treat this form of cancer (including expression from gene therapy vectors) or are used in a preparation for cancer treatment. (I) is also used for the generation of specific antibodies. (II) are particular tissue type before comparison of expression patterns. This apprinciple to a significantly longer fragment of the gene to be revealed, and therefore reduces the number of failures associated with the fact that BTYs from different libraries may represent different parts of the same unknown gene, distorting the estimated frequency of occurrence in a particular tissue. Ax42120Co 2x43309 represent expressed sequence tag (BST) fragments isolated from a human bladder tumour CDNA library which encode the proteins represented in AAY66143-Y66198.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     79.3%; Score 276; DB 20; Length 772; 87.1%; Pred. No. 1.7e-75; ive 0; Mismatches 45; Indels C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; 206 G; 175 T; 0 other;
```

셤 ŏ

ŏ

g

δ a ŏ

```
present invention.
                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                 AAA13924
  SXC
                                                                                            ò
                                                                                                                q
                                                                                                                                       ò
                                                                                                                                                            g
                                                                                                                                                                                    Ω
                                                                                                                                                                                                          g
                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                               δy
                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                Pp
                                                                                                                                                                                                                                                                                                                                                                                                                                Human, parathyroid hormone related protein; PTHrP; monoclonal antibody; hypercalcaemia; rheumatoid arthritis; bone cancer; metastasis; pain; fracture; cachexia; tooth disease; periodontal disease; gingiva; sepals; systemic inflammatory response syndrome; SIRS; hypophosphataemia; antiarthritis; cytostatis; antiinflammatory; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human monoclonal antibody to parathyroid hormone related protein. eful for treating hypercalcemia, rheumatoid arthritis, cancer of bone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention describes a human monoclonal antibody to parathyroid hormone related protein (PTHrP). The monoclonal antibody or its fragments, following the stimulation of PTHFP has the following properties: (a) inhibits intracellular elevation of CAMP; (b) inhibits the release of calcium from bone; or (c) inhibits elevation of blood calcium content. The monoclonal antibody can be used in the treatment of hypercalcaemia, rheumatoid arthritis, cancer of bone including metastasis, pain, fracture, cachexia, diseases of teeth, periodontal diseases and gingiva, sepsis, systemic inflammatory response syndrome (SIRS) and hypophosphateamia. It has antiarthritic, cytostatic and antiinflammatory activities. The present sequence represents a human PTHrP monoclonal antibody clone nucleotide sequence from the
                                                                                                               240
                                                                     180
GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 146
                                              206
                                                                                         266
                                                                                                                                       326
                                                                                                                                                            AGCAGAGIGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA
                                                                              TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                           ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                           Human PTHrP monoclonal antibody clone 3G4-3 DNA SEQ ID NO:17
                                                                                                                                                                                                        Example 10; Page 50; 88pp; Japanese.
                                                                                                                                                                                                                                                                                         BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 including metastasis, and pain
                                                                                                                                                                                                                                                                                        AAA13927 standard; DNA; 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98JP-0304793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98JP-0188196
98JP-0196729
                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (NISB ) JAPAN TOBACCO INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-286723/25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P-PSDB; AAY82617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JP2000080100-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-OCT-1998;
                                                                                                                                                                                                                                                                                                                                      02-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-JUN-1998;
26-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-MAR-2000
                                                                                                                                                                                                                                                                                                               AAA13927;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       useful
                                           147
                                                                 121
                                                                                       207
                                                                                                                                    267
                                                                                                                                                            241
                                                                                                                                                                                327
                       61
                                                                                                              181
                                                                                                                                                                                                                                                                              AAA1392
                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                               ò
                                          8
                                                                 ò
                                                                                       a
                                                                                                              õ
                                                                                                                                  a
                                                                                                                                                           οy
                                                                                                                                                                                g
                                                                                                                                                                                                        ò
```

```
Human; parathyroid hormone related protein; PTHrP; monoclonal antibody; hypercalcaemia: rheumatoid arthritis; bone cancer; metastasis; pain; fracture; cachexia; tooth disease; periodontal disease; gingiva; sepsis; systemic inflammatory response syndrome; SIRS; hypophosphataemia; antiarthritic; cytostatic; antiinflammatory; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A human monoclonal antibody to parathyroid hormone related protein. - useful for treating hypercalcemia, rheumatoid arthritis, cancer of bone including metastasis, and pain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention describes a human monoclonal antibody to parathyroid hormone related protein (PTHrP). The monoclonal antibody or
                                                                                                                                                                                                                                             121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                         241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 GATATIGIGAGGACTCAGINICCACTCTCCCTGCCGTCACCCCTGGAGAGCCGGCCTCC 120
                                                                                                                                                                                                                   ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                         Gaps
                                                                                                                                1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCGTCACCCCTGGAGGCGGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                  TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human PTHrP monoclonal antibody clone 2F8-10-3 DNA SEQ ID NO:11.
                                                                                       .;
0
                                           Length 720;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCACGTTCGGCCAAGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G; 163 T; 4 other;
                                                ; 7e-75;
                                              DB 21;
                                                                Pred. No. 7e-7
0; Mismatches
                                           Score 274;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 10; Page 41-42; 88pp; Japanese.
  C; 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP.
                                         78.78;
86.58;
A; 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA13924 standard; DNA; 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98JP-0304793.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98JP-0188196
98JP-0196729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-AUG-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (NISB ) JAPAN TOBACCO INC
                                                                                       Conservative
  Sequence 720 BP; 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000-286723/25.
                                                                Best Local Similarity
Matches 301; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P-PSDB; AAY82614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JP2000080100-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAA13924;
                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ношо
                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
```

```
ö
its fragments, following the stimulation of PTHrP has the following properties: (a) inhibits intracellular elevation of CAMP; (b) inhibits the release of calcium from bone; or (c) inhibits elevation of blood calcium content. The monoclonal antibody can be used in the treatment of hypercalcaemia, rheumatoid arthritis, cancer of bone including metaatasis, pain, fracture, or of compared of calcium content. The monoclonal subject of content of content of content of content of content of calcium content in fracture, sepsis, systemic inflammatory response syndrome (SIRS) and hypophosphatemia. It has antiarthritic, cytostatic and antiinflammatory activities. The present sequence represents a human PTHIP monoclonal antibody clone nucleotide sequence from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                             61 GATATTGTGATGANTCAGTNTCCACTCTCCCTGCCCGTCACTCCTGGAGAGCCGGCCTCC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; parathyroid hormone related protein; PTHFP; monoclonal antiboo hypercalcaemia; rheumatoid arthritis; bone cancer; metastasis; pain; fracture; cachexia; tooth disease; periodontal disease; gingiva; sepsis; systemic inflammatcry response syndrome; SIRS; hypophosphataemia; antiarthritic; cytostatic; antiinflammatory; ds.
                                                                                                                                                                                                                                                                                                                          1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                  TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA
                                                                                                                                                                                                                                                                                         ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human PTHrP monoclonal antibody clone 1C1-3 DNA SEQ ID NO:13.
                                                                                                                                                                                                                                                  78.4%; Score 273; DB 21; Length 720; 86.2%; Pred. No. 1.4e-74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTCACGTTCGGCCAAGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361 TTCACTTTCGCCCTGGGACCAAAGTGGATATCAAACGAACTGTGGCT 408
                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                  Sequence 720 BP; 174 A; 190 C; 188 G; 163 T; 5 other;
                                                                                                                                                                                                                                                                                         48;
                                                                                                                                                                                                                                                                        Pred. No. 1.4e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAA13925 standard; DNA; 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98JP-0304793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98JP-0188196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98JP-0196729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (NISB ) JAPAN TOBACCO INC.
                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2000-286723/25.
                                                                                                                                                                                                                                                                      Best Local Similarity
Matches 300; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JP2000080100-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAA13925;
                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAA13925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δλ
                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                             οy
                                                                                                                                                                                                                                                                                                                                                                                                                             Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ω
       55555555555555
                                                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

```
Human, parathyroid hormone related protein, PTHrP; monoclonal antibody, hypercalcaemia; rheumatoid arthritis; bone cancer; metastasis; pain; fracture; cachexia; tooth disease; periodontal disease; gingiva; sepsis; systemic inflammatory response syndrome; SIRS; hypophosphataemia; antiarthritic; cytostatic; antiinflammatory; ds.
                                  A human monoclonal antibody to parathyroid hormone related protein. useful for treating hypercalcemia, rheumatoid arthritis, cancer of bone
                                                                                                                                                            parathyroid hormone related protein (PTHrP). The monoclonal antibody or its fragments, following the stimulation of PTHrP has the following properties: (a) inhibits intracellular elevation of CAMP: (b) inhibits the release of calcium from bone; or (c) inhibits elevation of blood calcium content. The monoclonal antibody can be used in the treatment of hypercalcaemia, rheumatoid arthritis, cancer of bone including metastasis, pain, fracture, cachexia, diseases of teeth, periodontal diseases and gingiva, sepsis, systemic inflammatory response syndrome (SIRS) and hypophosphataemia. It has antiarthritic, cytostatic and antiinflammatory activities. The present sequence represents a
                                                                                                                                                                  antibody or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCGGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGGGTTCTAATCGGGCC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                   human PTHrP monoclonal antibody clone nucleotide sequence from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGGCGGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human PTHrP monoclonal antibody clone 4B4-6-21 DNA SEQ ID NO:19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                present invention describes a human monoclonal antibody to
                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 21; Length 720;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 720 BP; 172 A; 197 C; 190 G; 160 T; 1 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 47;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 272.8; DB 2.
Pred. No. 1.6e-74;
0; Mismatches 47;
                                                                                                            Example 10; Page 44-45; 88pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAA13928 standard; DNA; 720 BP
                                                                         and pain
                                                                                                                                                                                                                                                                                                                                                                                                                                            78.4%;
86.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 301; Conservative
                                                                         including metastasis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                        present invention
P-PSDB; AAY82615.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAA13928;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAA13928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qγ
```

JP2000080100-A.

21-MAR-2000

```
human monoclonal antibody to parathyroid hormone related protein. eful for treating hypercalcemia, rheumatoid arthritis, cancer of bone
                                                                                                                                                                                                                                                                      The present invention describes a human monoclonal antibody to parathyroid hormone related protein (PTHrP). The monoclonal antibody or its fragments, following the stimulation of PTHFP has the following properties: (a) inhibits intracellular elevation of CAMP; (b) inhibits the release of calcium from bone; or (c) inhibits elevation of blood calcium content. The monoclonal antibody can be used in the treatment of hypercalcaemia, rheumatoid arthritis, cancer of bone including metastasis, pain, fracture, cachexia, diseases of teeth, periodontal diseases and gingiva, sepsis, systemic inflammatory response syndrome (SIRS) and hypophosphateamia. It has antiarthritic, cytostatic and antiinflammatory activities. The present sequence represents a human PTHFP monoclonal antibody clone nucleotide sequence from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GATATTGTGATGACTCAGTCTCCACTCCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCAGAGTGGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTTATTACTGCAAGCTCTACAAACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human PTHrP monoclonal antibody clone 15H7-8-3 DNA SEQ ID NO:3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21; Length 720;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 720 BP; 174 A; 191 C; 186 G; 162 T; 7 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 272.4; DB 21;
Pred. No. 2.2e-74;
                                                                                                                                                                                                                                           Example 10; Page 53-54; 88pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . (0
                                                                                                                                                                                                                including metastasis, and pain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       78.3%;
86.2%;
                              98JP-0304793
                                                          98JP-0188196
98JP-0196729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAA13920 standard; DNA; 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                         (NISB ) JAPAN TOBACCO INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                     2000-286723/25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity Matches 300; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                               present invention
                                                                                                                                                     P-PSDB; AAY82618
                              12-OCT-1998;
                                                          17-JUN-1998;
                                                                          26-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-AUG-2000
                                                                                                                                                                                                useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA13920;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAA13920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                XEXEXEX
```

; 0

9

180

180

240 240

300 360

```
A human monoclonal antibody to parathyroid hormone related protein. - useful for treating hypercalcemia, rheumatoid arthritis, cancer of bone including metastasis, and pain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes a human monoclonal antibody to parathyroid hormone related protein (PTHrP). The monoclonal antibody or its fragments, following the stimulation of PHPP has the following properties: (a) inhibits intracellular elevation of CAMP; (b) inhibits the release of calcium from bone; or (c) inhibits elevation of blood calcium content. The monoclonal antibody can be used in the treatment of hypercalcaemia, rheumatoid arthritis, cancer of bone including metastasis, pain, fracture, cachexia, diseases of teeth, periodontal diseases and djingiva, sepais, systemic inflammatory response syndrome (SIRS) and hypophosphatemia. It has antiarthritic, cytostatic and antiinflammatory activities. The present sequence represents a human PTHPP monoclonal antibody clone nucleotide sequence from the
Human; parathyroid hormone related protein; PTHrP; monoclonal antibody; hypercalcaemia; rheumatoid arthritis; bone cancer; metastasis; pain; fracture; cachexia; tooth disease; periodontal disease; ginglva; sepsis; systemic inflammatory response syndrome; STRS; hypophosphataemia; antiarthritic; cytostatic; antiinflammatory; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 GATATTGTGATGACTCAGTNTCCACTCTCCCTGCCCGTCACCCTGGAGAGCCGGCCTCC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACCTGCAGAAGCCAGGCCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TACCTGCAGAAGCCAGGGCAGTCTCCACAGTTCCTGATCTATTTGGGGTTCTAATCGGGCC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 GATATIGIGATGACTCAGTCTCCACTCTCCCGGCCGGCCGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCAGAGTGGAGGCTGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 271.8; DB 21; Length 720;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCACGTTCGGCCAAGGACCAAGGTGGAGATCAAACGTACGGTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 720 BP; 174 A; 191 C; 188 G; 164 T; 3 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 3.3e-74;
0; Mismatches 48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 10; Page 31-32; 88pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        78.1%;
86.2%;
                                                                                                                                                                                                                                                       98JP-0188196.
98JP-0196729.
                                                                                                                                                                                                                        98JP-0304793
                                                                                                                                                                                                                                                                                                                (NISB ) JAPAN TOBACCO INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                WPI; 2000-286723/25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
es 300; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   present invention
                                                                                                                                                                                                                                                                                                                                                                     P-PSDB; AAY82610
                                                                                                                                              JP2000080100-A.
                                                                                                              Homo sapiens
                                                                                                                                                                                                                       12-0CT-1998;
                                                                                                                                                                                                                                                         17-JUN-1998;
                                                                                                                                                                                                                                                                            26-JUN-1998;
                                                                                                                                                                                    21-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                            useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δy
```

241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention describes a human monoclonal antibody to parathyroid hormone related protein (PFHRP). The monoclonal antibody or lits fragments, following the stimulation of PFHRP has the following properties: (a) inhibits intracellular elevation of cAMP: (b) inhibits the release of calcium from bone; or (c) inhibits elevation of blood calcium content. The monoclonal antibody can be used in the treatment of hypercalcaemia, rheumatoid arthritis, cancer of bone including metastasis, pain, fracture, cachexia, diseases of teeth, periodontal diseases and gingiva, sepsis, systemic inflammatory response syndrome (SIRS) and hypophosphataemia. It has antiarthritic, cytostatic and antiinflammatory activities. The present sequence represents a human PTHTP monoclonal antibody clone nucleotide sequence from the
                                                                                                                                                                                                                                                                                                                                      Human; parathyroid hormone related protein; PTHrP; monoclonal antibody; hypercal.caemia; rheumatoid arthritis; bone cancer; metastasis; pain; fracture; cachexia; tooth disease; periodontal disease; gingiva; sepsis; systemic inflammatory response syndrome; STRS; hypophosphataemia; antiarthritic; cytostatic; antinflammatory; ds..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human monoclonal antibody to parathyroid hormone related protein. -
eful for treating hypercalcemia, rheumatoid arthritis, cancer of bone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 GATATTGTGATGANTCAGTNTCCACTCTCCCTGCCCGTCACCCCTGGAGACCGGCCTCC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGGGTTCTAATCGGGCC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GATATTGTGATGACTCAGTCTCCACTCTCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                       Human PTHrP monoclonal antibody clone 264-12-20 DNA SEQ ID NO:15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 270.8; DB 21; Length 720; Pred. No. 6.8e-74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 49; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 720 BP; 172 A; 193 C; 187 G; 163 T; 5 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 10; Page 48-49; 88pp; Japanese.
                                                                      BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   including metastasis, and pain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              77.8%;
85.9%;
                                                               AAA13926 standard; DNA; 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98JP-0304793.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98JP-0188196.
98JP-0196729.
                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (NISB ) JAPAN TOBACCO INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 299; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2000-286723/25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P-PSDB; AAY82616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JP2000080100-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-JUN-1998;
26-JUN-1998;
                                                                                                                                                                                                        02-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-MAR-2000.
                                                                                                                                     AAA13926;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
RESULT 10
                                                                                                                                     NAMES OF STREET 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
The present invention describes a human monoclonal antibody to parathyroid hormone related protein (PTHFP). The monoclonal antibody or its fragments. Following the stimulation of PTHFP has the following properties: (a) inhibits intracellular elevation of cAMP; (b) inhibits the release of calcium from bone; or (c) inhibits elevation of blood calcium content. The monoclonal antibody can be used in the treatment of hypercalcaemia, rheumatoid arthritis, cancer of bone including metastasis, pain, fracture, cachexia, diseases of teeth, periodontal diseases and gingiva, sepsis, systemic inflammatory response syndrome (SIRS) and hypophosphateemia. It has antiarthritic, cytostatic and antihinflammatory activities. The present sequence represents a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A human monoclonal antibody to parathyroid hormone related protein. - useful for treating hypercalcemia, rheumatoid arthritis, cancer of bone including metastasis, and pain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human, parathyroid hormone related protein, PTHrP; monoclonal antibody; hypercalcaemia; rheumatoid arthritis; bone cancer; metastasis; pain; fracture; cachexia; tooth disease; periodontal disease; gingiva; sepsis; systemic inflammatory response syndrome; STRS; hypophosphataemia; antiarthritic; cytostatic; antiinflammatory; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCTGGAGAGCCGGCCACC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PTHrP monoclonal antibody clone nucleotide sequence from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  77.5%; Score 269.6; DB 21; Length 720; 85.9%; Pred. No. 1.6e-73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human PTHrP monoclonal antibody clone 16E12-6 DNA SEQ ID NO:5.
                                                                                                                                       TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 720 BP; 174 A; 200 C; 187 G; 159 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 10; Page 33-34; 88pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .;
0
                                                                                                                                                                                                                                                                                                                                           BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98JP-0188196.
98JP-0196729.
                                                                                                                                                                                                                                                                                                                                       AAA13921 standard; DNA; 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98JP-0304793.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (NISB ) JAPAN TOBACCO INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-286723/25.
P-PSDB; AAY82611.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JP2000080100-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-0CT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-MAR-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 299;
                                                                                                                                                                                                                                                                                                                                                                                                                   AAA13921;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    human
                                                                                                 301
                                                                                                                                                                                                                                                                           RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                  SOCOCOCOCOCOX PRANCE PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                          g
                                                                                                 ŏ
```

```
Human; parathyroid hormone related protein; PTHrP; monoclonal antibody; hypercal.caemla; rheumatoid arthritis; bone cancer; metastasis; pain; fracture; cachexia; tooth disease; periodontal disease, gingiva; sepsis; systemic inflammatory response syndrome; SIRS; hypophosphataemia; antiarthritic; cytostatic; antinflammatory; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention describes a human monoclonal antibody to parathyroid hormone related protein (PTHTP). The monoclonal antibody or its fragments, following the stimulation of PTHTP has the following properties: (a) inhibite intracellular elevation of cAMP; (b) inhibits the release of calcium from bone; or (c) inhibits elevation of blood calcium content. The monoclonal antibody can be used in the treatment of hypercalcaemia, rheumatonal antibody can be used in the treatment metastasis, pain, fracture, cachexia, diseases of teeth, periodontal diseases and gingiva, sepsis, systemic inflammatory response syndrome (SIRS) and hypophosphataemia. It has antiarthritic, cytostatic and annihinflammatory activities. The present sequence represents a human PTHTP monoclonal antibody clone nucleotide sequence from the
                                                                                                                                                                               300
121 ATCTCCTGCAGGTCCAGAGCCTCCTGCATAGAAATGGAAACAACTATTGGATTGG 180
                                                                                                               240
                                                                                                                                               300
                                                                                                                                                                                                 A human monoclonal antibody to parathyroid hormone related protein. useful for treating hypercalcemia, rheumatoid arthritis, cancer of including metastasis, and pain
                                                                 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA
                                                                                                                                                                             AGCAGAGGGGGGGGGTTTTATTACTGTCAACAGCTGGTAGAGTATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human PTHrP monoclonal antibody clone 184-10-13 DNA SEQ ID NO:9.
                                                                                                                                                                                                                                                                 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 10; Page 38-39; 88pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                             BP
                                                                                                                                                                                                                                                                                                                                                           AAA13923 standard; DNA; 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98JP-0188196
98JP-0196729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98JP-0304793
                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (NISB ) JAPAN TOBACCO INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-286723/25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P-PSDB; AAY82613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JP2000080100-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-JUN-1998;
26-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                         02-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                           AAA13923;
                                               121
                                                                                                             181
                                                                                                                                                                                                             301
                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                             RESULT 12
                                                                                                                                                                                                                                                                                                                                                               음
                                                                                                                                            Db
                                                                                                                                                                                                        q
                                               õ
                                                                              9
                                                                                                            ò
                                                                                                                                                                             õ
                                                                                                                                                                                                                                             å
                                                                                                                                                                                                                                                                           g
```

Sequence 720 BP; 174 A; 193 C; 187 G; 163 T; 3 other;

```
Human; parathyroid hormone related protein; PTHrP; monoclonal antibody; hypercalcaemia; rheumatoid arthritis; bone cancer; metastasis; pain; fracture; cachexia; tooth disease; periodontal disease, gingiva; sepsis; systemic inflammatory response syndrome; SIRS; hypophosphataemia; antiarthritic; cytostatic; antinflammatory; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention describes a human monoclonal antibody to parathyroid hormone related protein (PPHrP). The monoclonal antibody or its fragments, following the stimulation of PTHrP has the following properties: (a) inhibits intracellular elevation of cAMP; (b) inhibits the release of calcium from bone; or (c) inhibits elevation of blood
                                                                                                                                                                                                                                                                       300
                                                                                                                                     180
                                                                                                                                                               TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                    61 GATATICTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCTGGAGAGCCGGCCTCC 120
                            Gaps
                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    human monoclonal antibody to parathyroid hormone related protein setul for treating hypercalcemia, rheumatoid arthritis, cancer of
                                                                                                                         ACCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA
                                                                                                                                                                                                                                                                                       ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human PTHrP monoclonal antibody clone 5B12-16-12 DNA SEQ ID NO:21.
                                                     TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
Length 720;
                                                                                                                                                                                                                                                                                                                            TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                           DB 21;
             Pred. No. 4.4e-73
; Mismatches 5
 Score 268.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 10; Page 57-58; 88pp; Japanese.
                          ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and pain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98JP-0188196,
98JP-0196729,
                                                                                                                                                                                                                                                                                                                                                                                                                        AAA13929 standard; DNA; 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (NISB ) JAPAN TOBACCO INC.
                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                including metastasis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2000-286723/25.
P-PSDB; AAY82619.
              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JP2000080100-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-JUN-1998;
26-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-OCT-1998;
              Local Simi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAA13929;
 Query Match
                Best Loca
Matches
                                                                                                         61
                                                                                                                                    121
                                                                                                                                                               121
                                                                                                                                                                                         181
                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                             AAA13929
                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                          Db
                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                g
                                                                                                         δλ
                                                                                                                                                             δ
                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                            δ
```

```
ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; parathyroid hormone related protein; PTHrP; monoclonal antibody; hypercal.caemia; rheumatoid arthritis; bone cancer; metastasis; pain; fracture; cachexia; tooth disease; periodontal disease; gingiva; sepsis; systemic inflammatory response syndrome; STRS; hypophosphataemia; antiarthritic; cytostatic; antinflammatory; ds.
calcium content. The monoclonal antibody can be used in the treatment of hypercalcaemia, rheumatoid arthritis, cancer of bone including metastasis, pain, fracture, cachexia, diseases of teeth, periodontal diseases and gingiva, sepsis, systemic inflammatory response syndrome (SIRS) and hypophosphatemia. It has antiarthritic, cytostatic and antiinflammatory activities. The present sequence represents and human PTHIP monoclonal antibody clone nucleotide sequence from the
                                                                                                                                                                                                                                                                                                                                                                         ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                              TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                 1 GATATIGICATGACTCAGICICCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A human monoclonal antibody to parathyroid hormone related protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCAGAGTGGAGGTTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA
                                                                                                                                                                                                  ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human PTHrP monoclonal antibody clone 183-9-16 DNA SEQ 1D NO:7.
                                                                                                                                                                    DB 21; Length 720;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTCACGTTCGGCCCAAGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361 TTCACTTTCGGCCCTGGGACCAAAGTGGATATCAAACGAACTGTGGCT 408
                                                                                                                                                                   Score 267.8; DB 21; Length
Pred. No. 5.8e-73;
0; Mismatches 52; Indels
                                                                                                                                        720 BP; 169 A; 189 C; 190 G; 157 T; 15 other;
                                                                                                                                                                    Query Match 77.0%;
Best Local Similarity 85.1%;
Matches 296; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      standard; DNA; 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98JP-0304793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98JP-0188196
98JP-0196729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (NISB ) JAPAN TOBACCO INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-286723/25.
P-PSDB; AAY82612.
                                                                                                           present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-MAR-2000
                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAA13922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAA13922;
                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAA13922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88888888888
                                                                                                                                                                                                                                 ğ
                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                   Db
                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
```

```
useful for treating hypercalcemia, rheumatoid arthritis, cancer of bone
                                                                          The present invention describes a human monoclonal antibody to parathyroid hormone related protein (PTHFP). The monoclonal antibody or its fragments, following the simulation of PTHFP has the following properties: (a) inhibits intracellular elevation of cAMP; (b) inhibits the release of calcium from bone; or (c) inhibits elevation of blood calcium content. The monoclonal antibody can be used in the treatment of hypercalcaemia, rheumatoid arthritis, cancer of bone including metastasis, pain, fracture, cachexia, diseases of teeth, periodontal diseases and gingiue, sepsies, systemic inflammatory response syndrome (SIRS) and hypophosphataemia. It has antiarthritic, cytostatic and antiinflammatory activities. The present sequence represents a human PTHFP monoclonal antibody clone nucleotide sequence from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 GATATTGTGATGANTCAGTNTCCACTCTCCCTGCCCGTCACCCTGGAGAGCCGGCTCC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCGGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGAGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCICCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                         1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCGGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NO:
                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                        DB 21; Length 720;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cancer related protein coding sequence SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; breast cancer; diagnosis; therapy; vaccine; ss.
                                                                                                                                                                                                                                                                                                         Sequence 720 BP; 174 A; 190 C; 187 G; 166 T; 3 other;
                                                                                                                                                                                                                                                                                                                                        76.6%; Score 266.6; DB 21;
85.1%; Pred. No. 1.4e-72;
ive 0; Mismatches 52;
                                               Example 10; Page 36-37; 88pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAF44895 standard; cDNA; 963 BP.
              Including metastasis, and pain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0140903,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-JUN-2000; 2000WO-US17536.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 85.1 Matches 296; Conservative
                                                                                                                                                                                                                                                                             present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human breast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-JUN-1999;
12-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-DEC-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAF44895;
                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAF44895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δy
                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏλ
```

```
ö
                                                                                         New polynucleotides encoding breast tumor specific proteins, useful for prevention, treatment and diagnosis of breast cancer \cdot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 63 GATATTGTGATGACTCAGTCTCCACTCTCCCAGCCCGTCACCCTGGAGAGCCGGCCTCC 122
                                                                                                                                                                                                                                                                                                                                                                                                          61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                          123 ATCTCCTGCAAGTCTAGTCAGAGCCTCCTACATAGTAATGGATACAGTTATTTGGATTGG 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                     The present invention provides the coding sequences for a number of breast cancer related proteins. These can be used in vaccinations against, diagnosis of and treatment of cancer, particularly breast
                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                Query Match

75.6%; Score 263.2; DB 22; Length 963;
Best Local Similarity 84.8%; Pred. No. 1.7e-71;
Matches 295; Conservative 0; Mismatches 53; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 963 BP; 253 A; 264 C; 224 G; 213 T; 9 other;
                                                                                                                                      Claim 25; Page 135-136; 165pp; English.
                               Yuglu J, Mitcham JL;
(CORI-) CORIXA CORP.
                                                              WPI; 2001-041426/05.
                                                                                                                                                                                                                       cancer.
q
                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

Search completed: April 26, 2003, 05:05:49 Job time: 74.0118 secs

```
April 26, 2003, 07:27:07; Search time 33.6331 Seconds (without alignments) 11258.801 Million cell updates/sec
                                                                                                                                                                                                                                                                                    1 gatattgtgatgactcagtc.......agatcaaacgtacggtggct 348
GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                          OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                       US-09-674-716B-17
348
                                                                                                                                                                                                                                       Title:
Perfect score:
                                                                                                                                                                                                                                                                                    Sequence:
```

Run on:

1419640 Total number of hits satisfying chosen parameters: Minimum DB seq length: 0 Maximum DB seq length: 200000000

709820 seqs, 544064369 residues

IDENTITY\_NUC Gapop 10.0 , Gapext 1.0

Scoring table:

Searched:

Maximum Match 100% Listing first 45 summaries Post-processing: Minimum Match 0%

/cgn2\_6/ptodata/1/pubna/USO7\_PUBCOMB.seq:\*
/cgn2\_6/ptodata/1/pubna/USO6\_NEW\_PUB.seq:\*
/cgn2\_6/ptodata/1/pubpna/USO6\_NEW\_PUB.seq:\*
/cgn2\_6/ptodata/1/pubpna/USO6\_PUBCOMB.seq:\*
/cgn2\_6/ptodata/1/pubpna/USO6\_NEW\_PUB.seq:\*
/cgn2\_6/ptodata/1/pubpna/USO8\_NEW\_PUB.seq:\*
Published\_Applications\_NA:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

			مو				
Result No.	ult No.	Score	Query Match	Query Match Length DB	DB	. QI	Description
1	: :	263	75.6	1143	10	US-09-822-698A-6	Sequence 6, Appli
	7	262.8	75.5	339	10	US-09-822-698A-2	Sequence 2, Appli
	3	262.8	75.5	663	10	US-09-822-698A-25	Sequence 25, Appl
	4	256.8	73.8	896	6	US-09-924-340-7	Sequence 7, Appli
	J.	256.8	73.8	896	σ	US-09-992-600A-7	Sequence 7, Appli
	9	252	72.4	336	φ	US-09-848-798-99	Sequence 99, Appl
	7	250.2	71.9	738	6	US-10-158-646-61	Sequence 61, Appl
	æ	241.4	69.4	476	10	US-09-864-761-32306	Sequence 32306, A
	σ	241.4	69.4	563	10	US-09-864-761-15798	Sequence 15798, A
	10	239.2	68.7	999	6	US-09-479-614-25	Sequence 25, Appl
O	11	239.2	68.7	999	σ	US-09-479-614-27	Sequence 27, Appl
	12	239.2	68.7	726	σ	US-09-479-614-23	
O	13	239.2	68.7	726	σ	US-09-479-614-24	24,
	14	239.2	68.7	954	6	US-09-479-614-19	-
ນ ·.	15	239.2	68.7	954	6	US-09-479-614-21	21,
	16	233	67.0	492	6	US-10-060-036-3813	813
	17	231.6	9.99	375	10	US-09-753-436-65	Sequence 65, Appl
	18	228.6	65.7	344	10	US-09-840-459-98	Sequence 98, Appl
ပ	19	228.6	65.7	344	10	US-09-840-459-105	Sequence 105, App

Sequence 55, Appl Sequence 5, Appli	Sequence 3, Appli Sequence 3, Appli	Sequence 32327, A	Sequence 15819, A	Sequence 685, App	Seguence 7, Appli	Sequence 22, Appl			Sequence 46, Appl	Sequence 37, Appl	Sequence 63, Appl	Sequence 3, Appli	Sequence 9, Appli	Sequence 1, Appli	Sequence 41, Appl	Sequence 10, Appl	,	Sequence 3, Appli	Sequence 6, Appli			~	Ä
10 US-09-905-243-55 9 US-10-124-905-5 1 US-09-948-4298-5	9 US-10-948-4295-3 9 US-10-073-138-3	10 US-09-864-761-32327	10 US-09-864-761-15819	10 US-09-925-301-685	10 US-09-748-960-7	10 US-09-978-752-22	10 US-09-840-459-95	0	9 US-09-968-851-46			9 US-09-341-894-3	10 US-09-881-823-9	10 US-09-990-205-1	9 US-09-726-258-41	12 US-10-006-773-10	10 US-09-978-752-7	10 US-09-883-758-3	10 US-09-883-758-6	9 US-09-726-258-34	10 US-09-978-752-6	9 US-09-203-958-2	12 US-10-006-773-14
399 1	720	335	573	545	413	879	426	426	_	_	_			447	729	729	723	856	856	391	339	1135	504
65.4 64.6 64.6	64.6	64.0	64.0	62.8	62.0	62.0	61.8	61.8	61.6	61.6	61.3	61.1	61.1	6.09	6.09	6.09	8.09	60.7	60.7	60.5	60.3	60.1	0.09
227.6 224.8 224.8	224.8	222.6	222.6	218.4	215.8	215.8	215.2	215.2	214.2	214.2	213.4	212.6	212.6	212	212	212	211.6	211.2	211.2	210.4	210	209	208.8
20 21 22	23	24	25	26	27	28	29	c 30	31	32	c 33	34	35	36	37	38	39	40	c 41	42	43	44	45

## ALIGNMENTS

```
Members and Methods of Use Thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: SEQ ID NO:5 US-09-822-698A-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match 75.6%; Score 263; DB 10; Length 1143; Best Local Similarity 85.4%; Pred. No. 2.7e-78; Matches 293; Conservative 0; Mismatches 50; Indels C
               Sequence 6, Application US/09822698A
Fatent No. US20020146750A1
GENERAL INFORMATION:
APPLICANT: Hongenboon, Hendricus R.J.M.
APPLICANT: Honderikx, Maria P.G.
TITLE OF INVENTION: MUCIN-1 Specific Binding Meml;
FILE REFERENCE: DYX-015.1 US.
CURRENT APPLICATION NUMBER: US/09/822,698A
CURRENT FILING DATE: 2001.03-30
PRIOR APPLICATION NUMBER: US 09/538,913
PRIOR FILING DATE: 2000-03-30
SOFTWARE: Microsoft Word
SEQ ID NO 6
LENGTH: 1143
                                                                                                                                                                                                                                                                                                                                                            ORGANISM: artificial sequence
US-09-822-698A-6
                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŏ
```

```
CTHER INFORMATION: nucleotide sequence coding for amino acid sequence of CTHER INFORMATION: SEQ ID NO:24 US-09-822-698A-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 ATCTCCTGCAGGTCTAGTCAGAGCCTCCTGCATAGTAATGGATACACTCTATTTGGATTG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 7. Application US/09924340

Fublication No. US20030027248A1

GENERAL INFORMATION:

APPLICANT: Bejanin, Stephane

APPLICANT: Bejanin, Stephane

APPLICANT: Bejanin, Stephane

TILE OF INVENTION: HUMAN CDNAS AND PROTEINS AND USES THEREOF

FILE REFERENCE: 91.US2.REG

CURRENT APPLICATION HUMBER: US/09/924,340

CURRENT FILING DATE: 2001.08-06

PRIOR APPLICATION NUMBER: US 60/305,456

PRIOR FILING DATE: 2001.01-07-13

PRIOR FILING DATE: 2001.06-29

PRIOR PELICATION NUMBER: US 60/302,277

PRIOR PELICATION NUMBER: US 60/308,698

PRIOR PELICATION NUMBER: US 60/393,574

PRIOR FILING DATE: 2001.06-25

COPPURABEN OF SEQ ID NOS: 112
                                                                                                                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                                                                                                                                       Query Match 75.5%; Score 262.8; DB 10; Length 663; Best Local Similarity 86.1%; Pred. No. 2.7e-78; Matches 291; Conservative 0; Mismatches 47; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 TTCACTTTCGGCCCTGGGACCAAAGTGGATATCAAACG 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACG 338
CURRENT APPLICATION NUMBER: US/09/822,698A CURRENT FILING DATE: 2001-03-30 PRIOR PPLICATION NUMBER: US 09/538,913 PRIOR FILING DATE: 2000-03-30 NUMBER OF SEQ ID NOS: 112 SOFTWARE: MICROSOFT WORD SEQ ID NO 25 LENGTH: 663
                                                                                                                                                                                             TYPE: DNA ORGANISM: artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: 5'UTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: 1..31
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-924-340-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 7
                                                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            αd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                   Sequence 2, Application US/09822698A
Extent No. US20020146750A1
GENERAL INFORMATION:
APPLICANT: Hoogenboom, Hendricus R.J.M.
APPLICANT: Hoogenboom, Hendricus R.J.M.
APPLICANT: Hoogenboom, Maria P.G.
TITLE OF INVENTION: MUCIN-1 Specific Binding Members and Methods of Use Thereof FILE REFERENCE: DYX-015.1 US
CURRENT FILING DATE: 2001-03-30
PRIOR APPLICATION NUMBER: US 09/538,913
PRIOR FILING DATE: 2000-03-30
NUMBER OF SEC ID NOS: 112
SOFTWARE: Microsoft Word
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 3
US-09-822-698A-25
Sequence 25, Application US/09822698A
Sequence 25, Application US/09822698A
Setent No. US20020146750A1
GENERAL INFORMATION:
APPLICANT: Hondenboom, Hendricus R.J.M.
TITLE OF INVENTION: MUCIN-1 Specific Binding Members and Methods of Use Thereof;
FILE REFERENCE: DXX-015.1 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: SEQ ID NO:1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 TCCGGGGTCCCTGACAGGTTCAGTGGCAGTGTATCAGGCACAGATTTTACACTGAGAATC 240
    559 TCCGGGGTCCCTGACAGGTTCAGTGGCAGTGTATCAGGCACAGATTTTACACTGAGAATC 618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TACCTGCAGAAGCCAGGCCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                            619 AGCAGAGIGGAGGTGAGGATGTIGGAGTTTATTACTGCATGCAGGGTCTACAGAGTCCA 678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GATAITGIGAGGACTCAGICICCACTCTCCCTGCCCGTCACCCCTGGAGGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      75.5%; Score 262.8; DB 10; Length 339; llarity 86.1%; Pred. No. 2.1e-78; Conservative 0; Mismatches 47; Indels 0;
                                                                                                                                             TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGG 343
                                                                                                                                                                   TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACG 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Simi
Matches 291;
                                                                                                                                                                                                                                                                                     US-09-822-698A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-822-698A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
    q
                                                                                                                                                                                      QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                   ò
                                                                                            q
                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
```

3

ö

```
Sequence 99, Application US/09848798;
Sequence 99, Application US/09848798;
Publication No. US20030040605A1
GENERAL INFORMATION:
TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL
TITLE OF INVENTION: SORPING METHOD FOR PRODUCTION THEREOF;
TITLE OF INVENTION: SOSPING METHOD FOR PRODUCTION THEREOF;
TITLE OF INVENTION: SOSPING METHOD FOR PRODUCTION THEREOF;
CURRENT APPLICATION NUMBER: US/09/848,798
CURRENT APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 09/240,274
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/028,550
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/028,550
SOFTWARE: PATENT FILING DATE: 1996-10-11
NUMBER OF SEQ 1D NOS: 224
SOFTWARE: PATENT NO 99
FEATURE PATENT NO 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92 GATATIGIGATGACTCAGTCTCCACTCTTCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 151
                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7 GTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCCATCTCC 66
                                                                                                                                                                                                                                                                                                                                                          1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                              Length 968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 336;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 252; DB 9; Length 33
Pred. No. 9e-75;
0; Mismatches 50; Indels
                                                                                                                                                                                                                                                                                                             57; Indels
                                                                                                                                                                                                                                                              DB 9;
                                                                                                                                                                                                                                                           Score 256.8; DB 9
Pred. No. 3.1e-76;
0; Mismatches 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; OTHER INFORMATION: anti-Rh(D) chain G01
US-09-848-798-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .;
                                                                                                                                                                                                                                                              73.8%;
83.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             72.4%;
ilarity 84.9%;
Conservative
                                                                                                                                                                                                                                                                                                             Matches 291; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
ORGANISM: Homo sapiens
                                                                   FEATURE:
NAME/KEY: polyA_signal
LOCATION: 928..933
FEATURE:
                                                                                                                                                               ), NAME/KEY: polyA_site
; LOCATION: 953..968
US-09-992-600A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                      Similarity
                                               749..968
                        3'UTR
                      NAME/KEY:
                                                 LOCATION:
                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                      Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \Omega
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                           δλ
                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                            61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 112 TACCACCAGAAGCCAGGCAGTCTCCACAATATACTTGGGTTCTAATCGGGC 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           152 ATCTCCTGCAGGTCTAGTCAGAGCCTCCTGCATGTTCAAGGGTCCAACTATTTGGATTGG 211
                                                                                                                                                                                                                                                                                                             1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Benjanin, Stephane
APPLICANT: Benjanin, Stephane
APPLICANT: Tanaka, Hiroaki
TITE OF INVENTION: HUMAN CDNAS AND PROTEINS AND USES THEREOF
FILE REFERENCE: 91.094.DIV
CURRENT APPLICATION NUMBER: US/09/992,600A
CURRENT FILING DATE: 2001-11-13
PRIOR APPLICATION NUMBER: US 09/924,340
PRIOR APPLICATION NUMBER: US 09/924,340
PRIOR PELING DATE: 2001-08-06
PRIOR PELING DATE: 2001-08-06
PRIOR FILING DATE: 2001-07-13
PRIOR FILING DATE: 2001-07-13
PRIOR PELING DATE: 2001-06-19
PRIOR PELING DATE: 2001-06-29
PRIOR PELING DATE: 2001-06-15
PRIOR PELING DATE: 2001-06-15
PRIOR FILING DATE: 2001-06-15
                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                 DB 9; Length 968;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        392 TICACTITICGCCCTGGGACCAGAGTGGATATCAAGCGAACTGTGGCT 439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301 TICACGTICGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                             Score 256.8; DB 9;
Pred. No. 3.1e-76;
                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; Sequence 7, Application US/09992600A
; Publication No. US20030027161A1
; GENERAL INFORMATION:
                                                                                                                                                                                                              73.8%;
ilarity 83.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Homo sapiens
                                                                   NAME/KEY: polyA_signal
LOCATION: 928..933
NAME/KEY: polyA_site
LOCATION: 953..968
                                                                                                                                                                                                                                       Similarity
                                            LOCATION: 749..968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
LOCATION: 32..748
                      'UTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: 5'UTR
LOCATION: 1..31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 5
US-09-992-600A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 968
                                                                                                                                                                                                                                                              291;
                                                                                                                                                            US-09-924-340-7
LOCATION:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 7
                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                     Best Local
```

οqα

ŏ qq δ 셤 Ω Dp Ω Dρ ŏ οg

δ

```
ij
                                                                                                       246
TGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGGTACCTG 126
               CAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCATCAGGG 186
                                                                                                                                                      GTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCATTCACG 306
                                                                                                                                                                     61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATA---AGGATGGGAAGACATACTTGAAT 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGGCGGCCTCC 60
                                                                                                   118 TGGTACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101 TGGTACCTGCAGAGAGCCAGGGCAGTCTCCACAGCTCCTGATACGCTGTCCCATCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           178 GCATCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCAGCAGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 738;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: misc_feature
OTHER INFORMATION: Incyte ID No. US20030073105Al 1329931.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                      APPLICANT: Lasek, Amy K.W.
APPLICANT: Lasek, Amy K.W.
TITLE OF INVENTION: GENES EXPRESSED IN COLON CANCER; FILE REFERENCE: PA-0030-1 US
CURRENT FILING DATE: 2002-05-29
PRIOR APPLICATION NUMBER: 60/295,239
PRIOR RELIGNE DATE: 2001-05-31
NUMBER OF SEQ ID NOS: 78
SOFTWARE: PERL PROGRAM
SEQ ID NOS: 78
LENGTH: 738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71.9%; Score 250.2; DB 9;
84.0%; Pred. No. 4.7e-74;
Live 0; Mismatches 53;
                                                                                                                                                                                                           TTCGGCCAAGGGACCAAGGTGGAGATCAAACG 338
                                                                                                                                                                                                                         Sequence 61, Application US/10158646
Publication No. US20030073105A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 84.09
Matches 295; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                     US-10-158-646-61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-158-646-61
                                                                          124
                                                                                                                             184
                                                                                                                                                        247
                                                                                                                                                                                244
                                                                                                                                                                                                         307
                                                                                                                                                                                                                                  304
                                                 127
                                                                                                      187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                298
                       g
                                                                          Q
                                                                                                                            g
                                                                                                                                                                              g
                                                 ò
                                                                                                    ò
                                                                                                                                                      ò
                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
SERREAL INFORMATION:
SERREAL LINE MERMATION:
APPLICANY: Rank, David R.
APPLICANY: RANKERSHONG: R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 69.4%; Score 241.4; DB 10; Length 476; Best Local Similarity 85.4%; Pred. No. 3.7e-71; Matches 269; Conservative 0; Mismatches 46; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 18
COTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 14
COTHER INFORMATION: EXTLUMAN HIT: AA44313.1, EVALUE 0.00e+00
COTHER INFORMATION: SWISSPROT HIT: P06309, EVALUE 9.00e-55
COTHER INFORMATION: NT HIT: X12691.1, EVALUE 0.00e+00
US-09-864-761-32306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
                               Sequence 32306, Application US/09864761 Patent No. US20020048763A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA ORGANISM: Homo sapiens FEATURE:
                                                                                                            GENERAL INFORMATION:
US-09-864-761-32306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 32306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Op
```

; 0

• 0y g

δ g ŏ g

g

ολ

```
US-09-479-614-25
Sequence 25, Application US/09479614
Sequence 25, Application US/09479614
Sequence 25, Application No. US20030013183A1
GENERAL INFORMATION:
APPLICAMY: Wocall, Catherine
APPLICAMY: Weber, Eric
TITLE OF INVENTION: Feline Immunoglobulin E Molecules and Related Methods
FILE REPERENT ON UNBER: US/09/479,614
CURRENT FILING DATE: 2000-01-07
SEARLIER APPLICATION NUMBER: 60/115,033
EARLIER PILING DATE: 1999-01-07
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 25
LENGTH: 666
                                                                                                                                                                                                                                                                                                121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                            241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                          62 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCGCGCCCTGAAGAGCGGCCTCC 121
                                                                                                                                                                    Gaps
                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GATATIGIGATGACTCAGICICCACTCTCCCTGCCCGTCACCCCTGGAGGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                       Score 241.4; DB 10; Length 563;
Pred. No. 3.9e-71;
0; Mismatches 46; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 666;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                        OTHER INFORMATION: MAP TO AP001224.1
COTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL - 18
OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL -
US-09-864-761-15798
SOFTWARE: Annomax Sequence Listing Engine vers. 1.1 SEQ ID NO 15798
LENGTH: 563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 68.7%; Score 239.2; DB 9; Best Local Similarity 80.5%; Pred. No. 2.3e-70; Matches 280; Conservative 0; Mismatches 68;
                                                                                                                                          Query Match 69.4%;
Best Local Similarity 85.4%;
Matches 269; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                      301 TTCACGTTCGGCCAA 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               362 CCCACAGTGGTACAA 376
                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA ORGANISM: Felis catus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-479-614-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                      QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Dp
                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                δy
                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                    QΥ
                                                                                                                                                                                                                                                                                              TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                    241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                    61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                              121 TACCTGCAGAAGCCAGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCGGGCA 180
                                                                                                                                 TTCACGTTCGGCCAA 315
                                                                                                                                                                                                                                                312 CCCACAGTGGTACAA 326
                                                                                                                                                                                                                        301
                                           72
                                                                                                                     181
```

;

ø

```
RESULT 13
US-09-479-614-24/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Pate
SEQ ID NO 24
LENGTH: 726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       999
                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                QQ
                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dp
                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                        δy
                                                                                                                                                                                                                                                                                                                                                                                                 Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ó
                                                                                                                                                                                                                                                                          Sequence 27, Application US/09479614
Fublication No. US20030013183A1
GENERAL INFORMATION:
APPLICANT: WcCall, Catherine
APPLICANT: WcCall, Catherine
TITLE OF INVENTION: Fellor Immunoglobulin E Molecules and Related Methods
FILE REFERENCE: P-1047
FILE REFERENCE: P-1047
CURRENT APPLICATION NUMBER: 2000-01-07
CURRENT FILING DATE: 1999-01-07
BARLIER APPLICATION NUMBER: 60/115,033
BARLIER APPLICATION NUMBER: 60/115,033
SOFTWARE: Patentin Ver. 2.0
SSD ID NO 27
LENGTH: 666
                                                                       181 TCTGGGGTCCCAGACAGGTTCAGTGGCAGTGGGTCAGGGACAGATTCACCCTGAGAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
           ACCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                 241 ACCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GATATIGIGAIGACTCAGICTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                        TCAGGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 239.2; DB 9; Length 666; Pred. No. 2.3e-70; 0; Mismatches 68; Indels 0
                                                                                                                                                                          301 TICACGIICGGCCAAGGGACCAAGGIGGAGAICAAACGIACGGIGGCI 348
                                                                                                                                                                                          301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCACTTTCGGCCCAGGTACCAAGCTGGAGATCAAACGGAGTGATGCT 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 12
US-09-479-614-23
Sequence 23, Application US/09479614
Publication No. US20030013183A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 68.7%;
Best Local Similarity 80.5%;
Matches 280; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: McCall, Catherine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
CORGANISM: Fells catus
US-09-479-614-27
                                                                                                                                                                                                                                                  RESULT 11
US-09-479-614-27/c
                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                       181
                                                                                                                                           QΩ
                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qα
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
ò
                                                                                    a
                                                                                                                ò
                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                        ç
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ő
APPLICANT: Weber, Eric
FILE REFERENCE: P-1047
FILE GINVENTION: Feline Immunoglobulin E Molecules and Related Methods
FILE REFERENCE: P-1047
CURRENT APPLICATION NUMBER: US/09/479,614
CURRENT FILING DATE: 2000-01-07
EARLIER PELING DATE: 1999-01-07
NUMBER OF SEQ ID NOS: 34
SEQ ID NO 23
LENGTH: 726
TYPE: DNA
CORGANISM: Felis catus
US-09-479-614-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and Related Methods
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300 [11] [1] [1] [1] [1] [1] [1] [1] [1] AGCAGGTTGAGGTTACAGGATGTTATTACTGCGGTCAAGGTTTACAGCATCGT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 GATATTGTGATGACGCAGACCCCTCTGTGTCCCTCACCCCCTGGAGAGCCACCCTCA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                            TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14.1 TCTGGGGTCCCAGACAGGTTCAGTGGCACGGGTCAGGGACAGATTTCACCCTGAGAATC
                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               68.7%; Score 239.2; DB 9; Length 726; ilarity 80.5%; Pred. No. 2.3e-70; Conservative 0; Mismatches 68; Indels 0
                                                                                                                                                                                                                                                                                                                                       Length 726;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              68; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 24, Application US/09479614

Publication No. US20030013183A1

GENERAL INFORMATION

APPLICAMT: Weber, Eric

TITLE OF INVENTON: Feline Immunoglobulin E Molecules and
FILE REPERENCE: P-1047

CURRENT APPLICATION NUMBER: US/09/479,614

CURRENT FILING DATE: 2000-01-07

EARLIER PILNG DATE: 1999-01-07

SAFLIER PILNG DATE: 1999-01-07

NUMBER OF SEO ID NOS: 34

SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                       DB 9;
                                                                                                                                                                                                                                                                                                                                  Score 239.2; DB 9
Pred. No. 2.3e-70;
0; Mismatches 68
                                                                                                                                                                                                                                                                                                                                  68.7%;
80.5%;
                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 80.5
Matches 280; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TYPE: DNA
; ORGANISM: Felis catus
US-09-479-614-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best_Local Similarity
Matches 280; Conserv
```

```
Search completed: April 26, 2003, 09:24:13 Job time : 37.6331 secs
                                                                                                                                                                                                                                                                                                         US-09-479-614-21
                                                                                                                                                                                                                                               SEQ ID NO 21 LENGTH: 954
                                                                                                                                                                                                                                                                             TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Db
                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          òγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                  ŏλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                        δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                                                     RESULT 14
US-09-479-614-19
US-09-479-614-19
Sequence 19, Application US/09479614
Sublication No. US20030013183A1
GENERAL INFORMATION:
TATULE OF INVENTION: Feline Immunoglobulin E Molecules and Related Methods
TITLE OF INVENTION: Feline Immunoglobulin E Molecules and Related Methods
FILE REPERENCE: P-1047
CURRENT PILION DATE: 2000-01.07
GURRENT FILING DATE: 1999-01.07
BARLIER FILING DATE: 1999-01-07
NUMBER OF SEQ ID NOS: 34
SOTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        67 GATATTGTGATGACGCAGACCCCTCTGTCCCTGTCCGTCACCCCTGGAGGCCAGCCTCA 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TACCTGCAGAAGCCAGGCCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
              TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                       181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                              427
                                                                                                                                                                            AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                          Length 954;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 80.5%; Pred. No. 2.5e-70;
Matches 280; Conservative 0; Mismatches 68; Indels
                                                                                                                                                                                                                                    301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                    366 CTCACTTTCGGCCCAGGTACCAAGCTGGAGATCAAACGGAGTGATGCT 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA ORGANISM: Felis catus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: CDS
LOCATION: (7)..(732)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; FEATURE:
US-09-479-614-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   367
                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         307
                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                          qq
                                                                                                                                                                                                  g
                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qγ
                                                         δ
                                                                                    쉄
                                                                                                               ò
                                                                                                                                                                          ò
```

```
ö
NS-09-479-614-21/c
| Sequence 21, Application US/09479614
| Sequence 21, Application No. US2003001318341
| Publication No. US2003001318341
| GENERAL INFORMATION:
| APPLICANT: McCall, Catherine
| APPLICANT: Webcr. Eric
| TITLE OF INVENTION: Feline Immunoglobulin E Molecules and Related Methods
| FILE REFERENCE: P-1047
| CURRENT APPLICATION NUMBER: US/09/479,614
| CURRENT FILING DATE: 2000-01-07
| EARLIER APPLICATION NUMBER: 60/115,033
| EARLIER APPLICATION NUMBER: 60/115,033
| SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGACCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 954;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301 ITCACGTTCGGCCAAGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               588 CTCACTTTCGGCCCAGGTACCAAGCTGGAGATCAAAGGGAGTGATGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 68.7%; Score 239.2; DB 9; Best Local Similarity 80.5%; Pred. No. 2.5e-70; Matches 280; Conservative 0; Mismatches 68;
                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Felis catus
```

				•	
		441			
		٠.			
	•			•	
			· ·		
					•
				**	

```
Sequence 111, App
Sequence 15, Appl
Sequence 88, Appl
Sequence 99, Appl
Sequence 86, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 99, Appl
Sequence 86, Appl
Sequence 107, App
Sequence 90, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 2, Appli
Sequence 1, Appli
Sequence 99, Appl
Sequence 9, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 103, App
113, Appl
65, Appl
65, Appl
65, Appl
65, Appl
65, Appl
65, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 3, Appli
Sequence 40, Appl
Sequence 9, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Appli
                                                                                                       (without alignments)
7404.053 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 103, Sequence 13, Sequence 65, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 65,
Sequence 65,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 65,
Sequence 65,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 65,
Sequence 65,
                                                                                                                                                                                1 gatattgtgatgactcagtc......agatcaaacgtacggtggct 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seguence 65,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
                                                                                       April 26, 2003, 04:57:16; Search time 14.4142 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                     /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS.COMB.seq:*
/cgn2_6/ptodata/1/ina/PcTUS.COMB.seq:*
GenCore version 5.1.4-p5_-4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-000-088-1

US-09-240-274-99

US-08-24-0950-111

US-08-438-123-15

US-08-672-345C-88

US-08-672-345C-88

US-08-672-345C-90

US-08-672-345C-90

US-08-672-345C-90

US-08-672-345C-90

US-08-672-345C-90

US-08-672-345C-90

US-08-672-345C-90

US-08-672-345C-90

US-08-672-345C-90

US-08-483-389-65

US-08-483-389-65

US-08-483-389-65

US-08-483-389-65

US-08-483-393-65

US-08-483-393-65

US-08-483-933-65

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3-08-732-708C-40
3-08-253-877C-9
3-08-452-164A-9
                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-452-164A-9
US-08-603-024-3
US-08-392-419-3
                                                                                                                                                                                                                                                       441362 seqs, 153338381 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUMMARIES
                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                           nucleic search, using sw model
                                                                                                                                                                                                             IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                          Issued_Patents_NA:*
                                                                                                                                                                                                                                                                                                                  Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                              US-09-674-716B-17
348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    243.6
2243.6
2240.4
2240.4
2239.2
2239.2
2231.6
2231.6
2231.6
2231.6
2231.6
2231.6
2231.6
2231.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            261.2
252.8
252
249.4
244
244
                                                                                                                                                   Title:
Perfect score:
                                                                                                                                                                                                             Scoring table:
                                                             OM nucleic
                                                                                                                                                                                Sequence:
                                                                                                                                                                                                                                                          Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                          Database
                                                                                          :uo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š.
```

```
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                            Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                       Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Seq
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION Belease #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/082,623
FILING DATE: 25-JUN-1993
CLASSIFICATION NUMBER: US/08/082,623
FILING DATE: 25-JUN-1993
CLASSIFICATION DATA:
APPLICATION NUMBER: US 08/010,228
FILING DATE: 28-JAN-1993
ATTORNEY/AGENT INFORMATION:
NAME: Smith, Willaim M
REGISTRATION NUMBER: 11823-055-1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 326-2400
TELEFONE: (415) 326-242
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 2. Application US/08082623
Patent No. 5750106
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: HUMAN MONOCLONAL ANTIBODIES TO
TITLE OF INVENTION: CYTOMEGALOVIRUS
NUMBER OF SEQUENCES: 4
CORRESPONDENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend Khourie and Crew
STREET: 379 Lytton Avenue
                                  US-08-875-811-52
US-08-875-811-54
US-08-468-671-11
US-08-70-976-64
US-08-976-288-64
US-08-976-288-64
US-08-468-661-4
US-08-478-857-4
US-08-471-771-4
US-08-471-771-4
US-08-983-035A-4
US-08-9130-783-4
US-08-983-035A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1: 339 base pairs
nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Palo Alto
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
6633 . 6633 . 6633 . 6633 . 6633 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 6652 . 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 94301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-082-623-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH:
2002

2002

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003

2003
```

OTHER INFORMATION: /standard\_name= "Nucleotide OTHER INFORMATION: Sequence of the V-l region of SDZ MSL 109" Patent No. 5750106

NAME/KEY: misc\_feature LOCATION: 1.339 ORGANISM: Homo sapiens

FEATURE:

us-09-674-716b-17.rni

ô g ŏ g q

õ

Dp

ò g ò g

ò

```
Sequence 99, Application US/09240274

Sequence 99, Application US/09240274

Patent No. 6255455

GENERAL INFORMATION:

APPLICANT: Siegel, Donald L.

TITLE OF INVENTION: Rh(D)-BINDING PROTEINS AND MAGNETICALLY ACTIVATED CELL

TITLE OF INVENTION: SORTING METHOD FOR PRODUCTION THEREOF

FILE REFERENCE: 09596-4202

CURRENT APPLICATION NUMBER: US/09/240,274

CURRENT PILING DATE: 1999-01-29

SEARLIER PILING DATE: 1998-04-10

EARLIER PILING DATE: 1998-04-10

SEARLIER PILING DATE: 1996-10-11

NUMBER OF SEQ ID NOS: 224

SOFTWARE: PATENTING NOS: 224

SOFTWARE: PATENTING NOS: 226

SOFTWARE: PATENTING NOS: 227

SOFTWARE: PATENTING NOS: 220
                                                                                        67 TGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGGTACCTG 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     247 GTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCATTCACG 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                      241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCATCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         187 GTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATCAGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 252; DB 4; Length 336;
Pred. No. 6.1e-72;
0; Mismatches 50; Indels
                                                                                                                                                             301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAA 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            307 ITCGGCCAAGGGACCAAGGTGGAGATCAAACG 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; OTHER INFORMATION: anti-Rh(D) chain G01
US-09-240-274-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 9, Application US/08264093
Patent No. 5639863
GENERAL INFORMATION:
APPLICANT: Michael D. Dan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  72.4%;
84.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 72.4
Best Local Similarity 84.9
Matches 282; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                           US-09-240-274-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-264-093-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 4
                                                                                                                                                                                                                         RESULT
                                     Q
                                                                                                                                                                        ΩD
                                                                                                      g
                                                                                                                                      ò
                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: HUMAN MONOCLONAL ANTIBODY AGAINST HEPATITIS B VIRUS
TITLE OF INVENTION: SURFACE ANTIGEN (HBVSAG)
TITLE OF INVENTION: SURFACE ANTIGEN (HBVSAG)
TITLE OF INVENTION: SURFACE ANTIGEN (HBVSAG)
CURRENT APPLICATION NUMBER: US/09/000,088
CURRENT FILING DATE: 1998-01-22
EARLIER APPLICATION NUMBER: PCT/IL97/00183
EARLIER APPLICATION NUMBER: IL96/118626
EARLIER APPLICATION NUMBER: 1196/118626
EARLIER FILING DATE: 1996-06-11
NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin Ver: 2.0
SEQ ID NO 1
LENGTH: 336
                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                       ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GATATIGIGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                   1 GATATTGTGATGACTCAGTCTCCACTCTCCCGTCCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                     TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                       241 AGCAGAGGTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GATATTGTGATGACTCAGTCTCCACTCTCCTGTCCGTCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
                                   Length 339;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 336;
                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                      301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACG 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 261.2; DB 1
Pred. No. 6.6e-75;
); Mismatches 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 252.8; DB 3
Pred. No. 3.4e-72;
0; Mismatches 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1, Application US/09000088 Patent No. 6146629 GENERAL INFORMATION: APPLICANT: DAGAN, Shlomo
                                                               ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       72.6%;
84.5%;
                                 75.1%;
85.8%;
                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 72.6
Best Local Similarity 84.5
Matches 284; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; NAME/KEY: CDS
; LOCATION: (1)..(336)
US-09-000-088-1
                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: HUMAN
                                                                   Matches 290;
US-08-082-623-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-000-088-1
                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
                                                 Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                    61
                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                     241
```

ö

Gaps

186

246

Db ò 음

ò 셤 ò

```
NAME: J.G. Mullins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-438-123-15
                                                                        SEQ ID NO 111
LENGTH: 420
                                                                                                           TYPE: DNA
                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ĥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 TGGTACCTGCAGAGAGCCAGGCAGTCTCCACAGCTCCTGATCTATACGCTTTCCTATCGG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCAGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTAT 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGTACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGG 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCATCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAA 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATA---AGGATGGGAAGACATACTTGAAT 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 GATATIGIGATGACICAGICICCACTCICCCIGCCGICACCCCIGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1; Length 339;
ANTIBODIES SPECIFIC TO SUDENT GLIOMA SURFACE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ANTI-COCAINE CATALYTIC ANTIBODY
                                                                                                                                                                                                      Diskette - 3.5 inch, 1.4 Mb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCATTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAA 336
                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 536
PRIOR APPLICATION DATA: No. 5639863 applicable ATTORNEY/AGENT INFORMATION:
NAME: Lake, James R.
REGISTRATION NUMBER: 31081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 249.4; DB 1
Pred. No. 4.2e-71;
0; Mismatches 46
                                                                                                                                                                                                                                                                                                                                                                               REFERENCE TO THE TELECOMMUNICATION INCOMPATION:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (416) 868-1482
TELEFAX: (416) 362-0823
INFORMATION FOR SEQ ID NO: 9:
 HUMAN MONOCLONAL ANTIBC
CELL CYCLE-INDEPENDENT
ANTIGEN
                                              NUMBER OF SEQUENCES: 26
CORRESPONDENCE ADDRESS:
RIDOUL & Maybee
STREET: 2300 Richmond-Adelaide Centre
STREET: 101 Richmond Street West
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
US-09-214-095D-111
Sequence 111, Application US/09214095D
Patent No. 6280987
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/264,093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
STRANDEDNESS: single stranded
                                                                                                                                                                                                                     COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: MS-DOS 6.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   71.78;
85.58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           339 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                   ASCII Editor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Landry, Donald TITLE OF INVENTION: ANTI-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                      COUNTRY: Canada
ZIP: M5H 2J7
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
   TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                Ontario
                                                                                                                          CITY: Toronto
STATE: Ontario
                                                                                                                                                                                                                                                                                                 FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Sim
Matches 290;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-264-093-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qγ
```

```
DCCATION: (1)..(403)
CTHER INFORMATION: n at any position represents any nucleotide including c.g,t,a, US-09-214-095D-111
                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                53 GATATGGTGATGACGCAGGATGAACTCTCCCAATCCTGTCACTTCTGGAGAATCAGTTTCC 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  173 TTTCTGCAGAGACCAGGACGATCTCCTCAACTCCTGATCTATTTGATGTCCACCGGTGCA 232
                                                                                                                                                                                                                                                                                                                                                                                                                           Length 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 TICACGITCGGCCAAGGGACCAAGGIGGAGAICAAACGIACGGIGGCI 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 15, Application US/08438123
Patent No. 5552293
CENERAL INFORMATION:
APPLICATION:
TITLE OF INVENTION: TUMOR ANTIGEN SPECIFIC ANTIBODY
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
ADDRESSEE: Lowe, Price, Leblanc & Becker
                                                                                                                                                                                                                                                                                                                                       Score 244; DB 4;
Pred. No. 2.5e-69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Lowe, Price, LeBlanc & Becker STREET: Suite 300, 99 Canal Center Plaza CITY: Alexandria STATE: Virginia COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
FILE REFERENCE: 51400-A-PCT-US
CURRENT APPLICATION NUMBER: US/09/214,095D
CURRENT FILING DATE: 1999-07-19
NUMBER OF SEQ ID NOS: 121
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: DOS Text File
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/438,123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/906,350
                                                                                                                                                                                                                                                                                                                                       70.1%;
81.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                     Matches 283; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                             NAME/KEY: V_segment
                                                                                                                                                                                  ORGANISM: Murine
```

```
181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTATACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                    61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                             61 ATCTCCTGCAGGTCTAGTAGTAGGAGTCTCCTATATAGGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 AGTAGAGGTGAAGGTTGTGGGTGTGTATTACTGTCAACACTTTGTAGACTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 TTTCTGCAGAGACCAGGACGATCTCCTCAACTCCTGATCTATTGATGTCCACCCGTTCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                 1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                          121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                              Length 339;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 339
                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 99, Application US/09214095D
Patent No. 6280987
GENERAL INFORMATION:
APPLICANT: Landry, Donald
TITLE OF INVENTION: ANTI-COCAINE CATALYTIC ANTIBODY
FILE REFERENCE: 51400-A-PCT-US
CURRENT APPLICATION NUMBER: US/09/214,095D
CURRENT FILING DATE: 1999-07-19
NUMBER OF SEQ ID NOS: 121
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 243.6; DB 4;
pred. No. 3.1e-69;
0; Mismatches 59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301 TTCACGTTCGGCTCGGGGACAAGTTGGAGATAAAACG 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACG 338
                                                                                                                                                                                          Query Match 70.0%; Score 243.6; DB 2
Best Local Similarity 82.5%; Pred. No. 3.1e-69;
Matches 279; Conservative 0; Mismatches 59
                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                70.0%;
82.5%;
                    SEQUENCE CHARACTERISTICS:
LENGTH: 339 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 70.09
Best Local Similarity 82.59
Matches 279; Conservative
  INFORMATION FOR SEQ ID NO:
                                                                                                            linear
                                                                                                       ; TOPOLOGY: Iti
; MOLECULE TYPE:
US-08-672-345C-88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Murine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 8
US-09-214-095D-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-214-095D-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 99
LENGTH: 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                    δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 TCAGGGGTCCCTGACAGGTTCAGTGGAGGTCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   282 TCAGGAGTCCCAGACAGGTTCAGTGGCAGTGGGTCAGGAACTGCTTTCACACTGAGAATC 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        342 AGTAGAGTGGAGGCTGAGGATGTGGGTGTTTATTACTGTCTGCAACATCTAGAGTATCCG 401
                                                                                                                                                                                                                                                                                                                                                                                                             102 GATATTGTGATGACTCAGGCTGCACCCTCTGTACCTGTCACTCCTGGAGAGTCAGTATCC 161
                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                    1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                           ó
                                                                                                                                                                                                                                                                               Length 464;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         402 TICACGITCGGICCTGGGACCAAGCIGGAGCTGAAACGGGCTGATGCI 449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 TTCACGTTCGGCCAAGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-672-345C-88

Sequence 88, Application US/08672345C

Patent No. 5948658

GENERAL INFORMATION:
APPLICANT: Landry Donald, W.
TITLE OF INVENTION: ANTI-COCAINE CATALYTIC ANTIBODY
NUMBER OF SEQUENCES: 108
CORRESPONDENCE ADDRESS:
ADDRESSEE: Cooper and Dunham LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBN PC compatible
COMPUTER: IBN PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/672,345C
FILIG DATE: 24-JUN-1996
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                               Query Match 70.1%; Score 244; DB 1; L. Best Local Similarity 81.3%; Pred. No. 2.6e-69; Matches 283; Conservative 0; Mismatches 65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 24-JUN-1996
CLASSIFICATION: 435
ATTORNEY, AGENT INFORMATION:
NAME: White, John P.
REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 0575/51400
TELECOMMULICATION INFORMATION:
TELEPHONE: 212-278-0400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3: Cooper and Dunham LLP
1185 Avenue of the Americas
                      149-011
                REFERENCE/DOCKET NUMBER: 149-0
TELECOMUNICATION INFORMATION:
TELEPHONE: 703 684 1111
INFORMATION FOR SEQ ID NO: 15:
SEQUENCE CHARACTERISTICS:
LENGTH: 464 base pairs
TYPE: Nucleic acid
STRANDEDNESS: single
REGISTRATION NUMBER: 33073
                                                                                                                                                                                                                 MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: New York
STATE: New York
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10036
                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                     US-08-438-123-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

g ŏ

δŏ

```
181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 ATCTCCTGCAGGTCTAGTAAGAGTCTCCTATATGAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GATATIGIGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Landry Donald, W.
TITLE OF INVENTION: ANTI-COCAINE CATALYTIC ANTIBODY
NUMBER OF SEQUENCES: 108
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                              ANTI-COCAINE CATALYTIC ANTIBODY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     69.1%; Score 240.4; DB 4;
82.0%; Pred. No. 3.4e-68;
iive 0; Mismatches 61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACG 338
                                                                              301 TTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAGACG 338
                                                        TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACG
                                                                                                                                                                                                                     APPLICANT: LANGTY, Donald
APPLICANT: LANGTY, Donald
TITLE OF INVENTION: ANTI-COCAINE CATALYTI
FILE REFERENCE: 51400-A-PCT-US
CURRENT APPLICATION NUMBER: US/09/214,095D
CURRENT FILING DATE: 1999-07-19
NUMBER OF SEQ ID NOS: 121
SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: Cooper and Dunham LLP STREET: 1185 Avenue of the Americas
                                                                                                                                                    RESULT 10
US-09-214-095D-107
; Sequence 107, Application US/09214095D
; Patent No. 6280987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 90, Application US/08672345C Patent No. 5948658 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 277; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: New York STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Murine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
US-08-672-345C-90
                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-214-095D-107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 107
                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ω
                         q
                                                            ο
                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 TTTTGCAGAGACCAGGACAATCTCCTCACCTCCTGATCTATTTGATGTCCACCGGTGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
       1 GATATIGIGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 AGCAGAGGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 2; Length 368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61; Indels
                                                                                                                                                                                                                                                        Sequence 86, Application US/08672345C
Patent No. 5948658
GENERAL INFORMATION:
APPLICANT: Landry Donald, W.
TITLE OF INVENTION: ANTI-COCAINE CATALYTIC ANTIBODY
NUMBER OF SEQUENCES: 108
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOPTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                            301 TTCACGTTCGGCTCGGGACAAAGTTGGAGATAAAAACG 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 240.4; DB 2
Pred. No. 3.4e-68;
0; Mismatches 61
                                                                                                                                       TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACG 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0575/51400
                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Cooper and Dunham LLP
STREET: 1185 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/672,345C
FILING DATE: 24-JUN-1996
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 10036
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: LBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: White, John P.
REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 0575,
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-278 0400
TELEPROX: 212-391-0525
INFORMATION FOR SEQ ID NO: 86:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 69.1%;
Best Local Similarity 82.0%;
Matches 277; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 368 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: New York STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-672-345C-86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                                        US-08-672-345C-86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                          301
                                                                                                                                                                                                                                   RESULT 9
```

a

à

Db ολ Ob

ŏ

δ

δý

; 0

```
240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 ATCTCCTGTCGCTCGACTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                             61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                         241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                           TACCTGCAGAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                   121 TACCTGCAGAAGCCAGGCCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GATATIGIGATGACTCAGTCTCCACTCCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ó.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 238.8; DB 4; Length 339;
Pred. No. 1.1e-67;
0; Mismatches 62; Indels 0
                                                                                                                                                                                                                                                                                                                                                                           301 TICACGIICGGCCAAGGGACCAAGGIGGAGAICAAACGIACGGIGGCI 348
                                                                                                                                                                                                                                                                                                                                                                                             ; LOCATION: (1)...(339)
; OTHER INFORMATION: 13410 light chain v region
US-09-406-532-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Connie L. Erickson-Miller
APPLICANT: Stephen D. Holmes
APPLICANT: James D. Winkler
TITLE OF INVENTION: TIE2 Agonist Antibodies
FILE REFERENCE: P50843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/406,532A
CURRENT FILING DATE: 1999-09-27
PRIOR APPLICATION NUMBER: 60/102,098
PRIOR FILING DATE: 1998-09-28
NUMBER OF SEO ID NOS: 21
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 13, Application US/09406532A, Patent No. 6365154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68.68;
81.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 81.75
Matches 276; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Connie I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-406-532-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 13
LENGTH: 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QC
                                                                                                                                qq
                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                      ρp
                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                 ò
                                                                                                                                                                   δ
                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δy
                                                                                                                                                                                                                                                                                                                                                                                                                                             ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 TTTCTGCAGAGACCAGGACGATCTCCTCAACTCCTGATCTATTTGATGTCCACCCGTGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 ATCTCCTGCAGGTCTAGTAGGAGTCTCCTATATAGGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 AGCAGAGTGGAGGTGTTGGGGTTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCGGTCACCCCTGGAGAGCCGGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGGATCAGGCACAGATTTTACACTGAAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                          Length 368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301 TICACGTICGGCTCGGGGAAAATIGGAGATAAAAACGGGCTGATGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301 TTCACGTTCGCCCAAGGACCAAGGTGGAGATCAAACGTACGGTGGCT 348
                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 103, Application US/09214095D
Patent No. 6280987
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL TEANOR, Donald
TITLE OF INVENTION:
FILE REFERENCE: 51400-A-PCT-US
CURRENT FILING DATE: 1999-07-19
NUMBER OF SEQ ID NOS: 121
SOFTWARE: Patentin version 3.0
Score 239.2; DB 4;
Pred. No. 8.3e-68;
0; Mismatches 68;
                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 68.7%; Score 239.2; DB 2; Best Local Similarity 80.5%; Pred. No. 8.3e-68; Matches 280; Conservative 0; Mismatches 68;
                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: White, John P.
REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 0575/51400
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-278-0400
TELEPHONE: 212-391-0525
                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: 90: SEQUENCE CHARACTERISTICS: LENGTH: 368 base pairs TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       68.78;
80.58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 80.5
Matches 280; Conservative
                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA ORGANISM: MURINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-214-095D-103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-214-095D-103
                                                                                                                                                                                                                                                                                                                                                                           US-08-672-345C-90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 103
LENGTH: 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

```
61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                        121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                                           181 TCAGGGGTCCCTGACAGGTTCAGTGGCAGTGGGATCAGGCACAGATTTTACACTGAAAATC 240
                                                                                                                                                                                                                                                                         241 AGCAGAGTGGAGGCTGAGGATGTTGGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                                                                                                                                                                                                               ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 233 South Wacker Drive/6300 Sears Tower
CITY: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE STATEMENT OF THE CONTROL OF STATEMENT APPLICATION DATA:
APPLICATION NUMBER: US/08/483,389
FILING DATE: 07-JUN-1995
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/102,852
FILING DATE: 05-AUG-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/009,266
FILING DATE: 22-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/009,266
FILING DATE: 22-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/894,061
                                                                                                                                                                                                                                                                                                                                                                              TTCACGTTCGGCCAAGGACCAAGGTGGAGATCAAACGTACG 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Gallatin, W. Michael
APPLICANT: Vazeux, Rosemay
TITLE OF INVENTION: ICAM RELATED PROTEIN
NUMBER OF SEQUENCES: 118
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27866/32760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 05-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION TANA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 07/827,689
FILING DATE: 27-JAN-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE: Illinois
COUNTRY: United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   UMBER: US 07/889,724
26-MAY-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 60606
COMPUTER REARABLE FORM:
REDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 65, Application US/08483389 Patent No. 5811517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: P-41,337
REFERENCE/DOCKET NUMBER: 2786(
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6500
TELEPRAX: (312) 474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEX: (312) 474-6600
INFORMATION FOR SEQ ID NO: 65: SEQUENCE CHARACTERISTICS: LENGTH: 375 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: UFILING DATE: 26-MAY-1PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Suh, Young J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-483-389-65
                                                                                                                                                                                                                                                                                                                                                          301
                                                               qq
                                                                                                                                                                                         δy
                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                               OD
                                                                                                                                                                                                                                                                                                                                                                                                 Db
                                                                                                        Qγ
                                                                                                                                             g
                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                        òγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
241 AGTAGAGGGGGGGGGGATGTGGGTGTTTATTACTGTATGCAACGTCTAGAATATCCT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 231.6; DB 1; Length 375;
Pred. No. 2.3e-65;
0; Mismatches 69; Indels 0
                                                                                                                                                                                                                                                                                                                                                      E: Marshall, O'Toole, Gerstein, Murray & Borun 6300 Sears Tower, 233 S. Wacker Drive
                                                                                                                                                                            Sequence 65, Application US/08482882
Patent No. 5773218
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Vazeux, Rosemay
TITLE OF INVENTION: ICAM-Related Materials and Methods NUMBER OF SEQUENCES:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Boru
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/482,882
FILIG DATE: 07-JUN-1995
CLASSIFICATION: 435
                                                             301 TTCACGTTCGGAGGGGGACCAAGCTGGAAATAAAACG 338
                                       301 TTCACGTTCGGCCAAGGGACCAAGGTGGAGATCAAACG 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
APPLICATION NUMBER: US 08/102,852
FILING DATE: 05-AUG-1993
PROR APPLICATION DATA:
APPLICATION NUMBER: US 08/009,266
FILING DATE: 22-JAN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 07/827,689 FILING DATE: 27-JAN-1992 ATTORNEY/AGENT INFORMATION:
NAME: No. 577318and, Greta E. REGISTRATION NUMBER: 35,302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/894,061
FILING DATE: 05-JUN-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 07/889,724
FILING DATE: 26-MAY-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/286,754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 32
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPANE: (312) 474-6300
TELEFAX: (312) 474-0448
TELER: 25-3856
INFORMATION FOR SEO ID NO: 65:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      66.6%;
79.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 375 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 79.8'
Matches 273; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: Illinois
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                       STREET: 6300 (CITY: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: 1i
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                          90909
                                                                                                                                           RESULT 14
US-08-482-882-65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-482-882-65
g
                                         δ
                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

; TYPE: nucleic acid ; STRANDEDNESS: single ; TOPLOGY: linear MOLECULE TYPE: DNA US-08-483-389-65

```
;
0
                                                                                                                                                                                                                  61 ATCTCCTGTCGCTCGAGTAAGAGTCTCCTGTATAAGGATGGGAAGACATACTTGAATTGG 120
                                                                                                                           121 TACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGATGTCCACCCGGGCA 180
                                                                                                                                                                               262 AGCAGAGTGGAGGCTGAGGATGTGGGAGTTATTACTGCTCTCAAAGTACACATGTTCCG 321
                                                                                                                                                                                                                                                                         241 AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGTCAACAGCTGGTAGAGTATCCA 300
                            0; Gaps
                                                                     1 GATATTGTGATGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCC 60
Score 231.6; DB 1; Length 375;
Pred. No. 2.3e-65;
0; Mismatches 69; Indels 0
                                                                                                                                                                                                                                                                                                                                             301 TTCACGTTCGGCCAAGGACCAAGGTGGAGATCAAACGTACG 342
Query Match 66.6%;
Best Local Similarity 79.8%;
Matches 273; Conservative
                                                                                                                                     82
                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                 g
                                                                               qq
                                                                                                            ò
                                                                                                                                    g
                                                                                                                                                                 ð
                                                                                                                                                                                         g
                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                             ò
                                                       ò
```

Search completed: April 26, 2003, 07:28:37 Job time : 15.4142 secs

```
GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
```

OM puribleic - nu	OM nucleic - nucleic search, naing sw model
Pi ototopii io	10000 10 50100 10000 01010
Run on:	April 26, 2003, 04:53:31; Search time 2664.21 Seconds (without alignments) 14583.043 Million cell updates/sec
Title: Perfect score: Sequence:	US-09-674-716B-18 1335 1 gaggtgcagctggtggagtcccctgtctccgggtaaatga 1335
Scoring table:	IDENTITY_NUC Gapop 10.0 , Gapext 1.0
Searched:	2054640 segs, 14551402878 residues
Total number of	Total number of hits satisfying chosen parameters: 4109280
Minimum DB seq length: 0 Maximum DB seq length: 20	seq length: 0 seq length: 200000000
Post-processing	Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

GenEmbl:\*

1: gb\_ba:\*

2: gb\_htg:\*

4: gb\_on:\*

6: gb\_pat:\*

7: gb\_ph:\*

8: gb\_ph:\*

8: gb\_ph:\*

10: gb\_ph:\*

11: gb\_pr:\*

12: gb\_pr:\*

13: gb\_pr:\*

14: gb\_vi:\*

15: gb\_vi:\*

16: gb\_ph:\*

17: gb\_ph:\*

18: gb\_ph:\*

18: gb\_ph:\*

19: gb\_vi:\*

19: gb\_vi:\*

10: gb\_vi:\* em\_htg\_mus:\*
em\_htg\_pln:\*
em\_htg\_rod:\*
em\_htg\_mam:\* Database :

Pred. No. is the number of results predicted by chance to have a

em\_htg\_vrt:\*
em\_sy:\*
em\_htgo\_hum:\*
em\_htgo\_mus:\*
em\_htgo\_other:\*

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Description	010015 010015 010015 0108747 0108747 0108785 0104667 0104667 0104667 0104667 010408 01	linear PAT 06-SEP-2000
SUMMARIES		ALIGNMENTS  1335 bp DNA 18 from Patent W09958679. 1 GI:9997427 construct. construct 1 sequences. 1 to 1335,
Result Query	11335 11335 11335 11336 11336 11336 1146.6 1146.6 1146.6 1146.6 1146.6 1146.6 1146.6 1146.6 1146.6 1146.6 1146.6 1146.6 1146.6 1146.6 1146.6 1153.7 1153.4 1153.4 1154.2 1155.2 1165	RESULT 1 AXO10615 LOCUS DEFINITION Sequence 18 ACCESSION AXO10615 VERSION AXO10615.1 KEYWORDS . SOURCE SYNTHELIC C ORGANISM SYNTHELIC C ORGANISM STITICIAL REFERENCE 1 (bases 1)
<u></u>		

linear PAT 06-SEP-2000								Ellis, J.H. and Shearin, J.	f, and their therapeutic uses		NOWE SCOTT JAMES (GB); RAPSON
	Sequence 18 from Patent AX010615	AX010615.1 GI:9997427		synthetic construct.	synthetic construct	artificial sequences.	1 (bases 1 to 1335)	Bonnefoy, J.Y., Crowe, S.J., Rapson, N.T., Ellis, J.H. and Shearin, J.	Antibodies to cd23, derivatives thereof, and their therapeutic uses	Patent: WO 9958679-A 18 18-NOV-1999;	BONNEFOY JEAN YVES MARCEL PAUL (FR); CROWE SCOTT JAMES (GB); RAPSON
RESULT 1 AX010615 LOCUS	DEFINITION	VERSION	KEYWORDS	SOURCE	ORGANISM		REFERENCE	AUTHORS	TITLE	JOURNAL	

```
CACACATGCCCACCTGCCCAGCACCTGAACTCGCGGGGGCACCGTCAGTCTTCCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    synthetic construct. synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX010646/c
LOCUS
    661
                                                                                                          781
                                                                                                                                                                                              901
                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                              1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                        661
                                                                                                                               841
                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
TITLE
JOURNAL
                                             721
                                                                 721
                                                                                     781
                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                          1081
                                                                                                                                                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                                                                                                                                                                               1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
                    Q
                                            οy
                                                                g
                                                                                     Ω
                                                                                                         g
                                                                                                                               δy
                                                                                                                                                  g
                                                                                                                                                                         Qγ
                                                                                                                                                                                           Q
                                                                                                                                                                                                                   δy
                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                              QQ
                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                       QQ
                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                               P
                                                                                                                                                                                                                                                                                                                                                                                     Qγ
                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                              Öλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Db
                                                                                                                                                                                TSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKKVBFKSCD
KTHTCPPCPAPELAGAPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYV
BGVEVVHNAKTKPREBQYNSTYRVVSYLTVLHQDWLNGKEYKCKVSNRALPAFIEKTIS
KAKGQPREPQVYTLPPSRDEITKNOVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTP
PVLDSDGSFFLYSKLTVDKSKWROQGNYFSCSVMHEALHNHYTQKSLSLSPGK"
414 c 360 9 240 t
                                                                                                                                                /translation="EVQLVESGGGLVKPGGSLRLSCAASGFTFSGYWWSWVRQAPGKG
LEWVAEIRLKSDNYATHYAESVKGKFTISRDDSKSRLYLQMNSLKTEDTAVYYCTDFI
DWGQGTLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGAL
                                                                                                                                                                                                                                                                                          ö
 GLAXO GROUP LTD (GB); ELLIS JONATHAN HENRY
                                                               /note="Humanised anti-CD23 antibody heavy chain variable
                                                                                                                                                                                                                                                                                                                                                     TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                099
                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                             GAGGTGCAGCTGGTGGAGTCTGGGGGGGGTTGGTAAAGCCCGGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                       CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                                                                                                                                                                                                                                                                                                                                                        CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCCTCAGCCTCCAAGGGCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCGGTCTTCCCCCTGGCACCCTCCTAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCGTGGTGACCGTGCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
                                                                                                                                                                                                                                                                     Length 1335;
                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                    Score 1335; DB 6;
Pred. No. 2.4e-263;
                                                                                  <1. .1335
/note="unnamed protein.product"
/codon_start=1
/transl_table=11
/protein_id="CAC07534.1"
/db_xref="GI:9997428"</pre>
                                                                                                                                                                                                                                                                                         · ;
                                          /organism="synthetic construct"
/db_xref="taxon:32630"
                                                                                                                                                                                                                                                                                         0; Mismatches
NICHOLAS TIMOTHY (GB); GLAXO (GB); SHEARIN JEAN (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                    100.0%;
100.0%;
                                                                                                                                                                                                                                                                                         Conservative
                                                                         region.
                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                     321
                                                                                                                                                                                                                                                                    Query Match
Best Local Simi.
Matches 1335; (
                                 source
                                                                                                                                                                                                                                   BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                      FEATURES
                                                                                   CDS
                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
artificial sequences.

It (bases 1 to 1335)

Sonnefoy, T.Y., Crowe, S.J., Rapson, N.T., Ellis, J.H. and Shearin, J.

Antibodies to cd23, derivatives thereof, and their therapeutic uses
AL Patent: WO 9958679-A 49 18-NOV-1999;
BONNEFOY JEAN YVES MARCEL PAUL (FR); CROWE SCOTT JAMES (GB); RAPSON
NICHOLAS TIMOTHY (GB); GLAXO GROUP LTD (GB); ELLIS JONATHAN HENRY
(GB); SHEARIN JEAN (US)

Location/Qualifiers
1. 1335

J. 1335

AD_LARGE LAXON:32630"

AD_LARGE LAXON:32630"

AD_LARGE LAXON:32630 antibody heavy chain variable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PAT 06-SEP-2000
                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021 CGAGAACCACAGGTGTACACCCTGCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTC 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
900
                                                                                                                                                                                                                                         900
                                                                       CCCCCAAAACCCAAAGACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTG
                                                                                                                            GTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAG
                                                                                                                                               GTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTC
                                                                                                                                                                                                                       AGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTC
                                                                                                                                                                                                                                                                                                 CGAGAACCACAGGTGTACACCCTGCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ىد
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AX010646 1335 bp
Sequence 49 from Patent W09958679.
AX010646 GI:9997455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ပ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
```

g

q

ò

g

ŏ

Op

δ

Ω

g

g

ò

ò

```
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               to protein.
                                                                                                                                                                                                                                                                                           BC018747
                                                                                                                                                                                                                                                                                                                                                         Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                            1141
                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                       255
                                                                                                                                   1201
                                                                                                                                                                                               75
                                                                                                                                                                                                                    1321
         1021
                                                   1081
                                                                                                               195
                                                                                                                                                        135
                                                                                                                                                                            1261
                                                                                                                                                                                                                                        15
                                                                                                                                                                                                                                                                     RESULT 3
BC018747
LOCUS
                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                          qq
                                                  δy
                                                                      qq
                                                                                         Qγ
                                                                                                            QC
                                                                                                                                   δλ
                                                                                                                                                     qq
                                                                                                                                                                         οy
                                                                                                                                                                                              Вb
                                                                                                                                                                                                              ·δ
                                                                                                                                                                                                                                     q
                                        0;
                                                                                                                                                                 1156
                                                                      TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGGTCCGCCAGGCT 1216
                                                                                                                                                                                                TCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCC 1020
                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              316
                                                                                                     120
                                                                                                                                                                                     CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA 240
                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                          009
                                                                                                                                                                                                                              CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACAGAT 300
                                                                                                                                                                                                                                                                                           916
                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                    916
                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                   796
                                                                                                                                                                                                                                                                                                                                                                                                                                                              736
                                         Gaps
                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCCACCCAGACCTACATCTGCAACGTGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACAAGCCCAGCAACACCAGGTGGACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTC
                                                                                                                                                        CCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTG
                                                                                                                                                                                                                                                                        TTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCA
                                                                                                                                                                                                                                                                                  TCGGTCTTCCCCCTGGCACCCTCCTCCAAGACACCTCTGGGGGCACAGCGGCCCTGGGC
                                                                                                                                                                                                                                                                                                                                    TCGGTCTTCCCCCTGGCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGC
                                                                                                                                                                                                                                                                                                                                                         TGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGGTGCAGCTGGTGGAGTCTGGGGGGAGGCTTGGTAAAGCCCGGGGGGGTCCCTTAGACTC
                                                                                                     TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT
                                                                                                                                             CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                                                                                                                                                                                                                                                                                                                                                ACCAGGGGGGGGACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGC
                                        ó
                   Length 1335;
                   5; DB 6;
2.4e-263;
hes 0;
                  100.0%; Score 1335; 100.0%; Před. No. 2.
                                        0; Mismatches
                                       Conservative
                            Best Local Similarity
Matches 1335; Conserv
                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           495 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             375 '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    435
                                                                                 1335
                                                                                                                         1275
                                                                                                                                            121
                                                                                                                                                                 1215
                                                                                                                                                                                     181
                                                                                                                                                                                                         1155
                                                                                                                                                                                                                                                  1095
                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                              795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 555
                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                    975
                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                           915
                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                    855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                    61
DRIGIN
                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                   οp
                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
```

ô

δ

δ

```
Homo sapiens, Similar to immunoglobulin heavy constant gamma 3 (G3m marker), clone MGC:31937 IMAGE:4851063, mRNA, complete cds. BC018747 GI:17511791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRI 11-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Steven Jones, Jennifer Asano, Ian Bosdet, Yaron Butterfield, Susanna Chan, Readman Chiu, Chris Fjell, Erin Garland, Ran Guin, Letticia Hsiao, Martin Krzywinski, Reta Kutsche, Oliver Lee, Soo Sen Lee, Victor Ling, Carrie Mathewson, Candlee McLeavy, Steven Ness, Pawan Pandoh, Anna-Liisa Prabhu, Parvaneh Saeedi, Jacqueline Schein, Duane Smailus, Michael Smith, Lorraine Spence, Jeff Stott, Michael Thorne, Miranada Tsai, Natasja van den Bosch, Jill Vardy,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Clone distribution: MGC clone distribution information can be four through the I.M.A.G.E. Consortium/LINL at: http://image.llnl.gov Series: IRAL Plate: 40 Row: i Column: 16 This clone was selected for full length sequencing because it passed the following selection criteria: Hexamer frequency ORF analysis, GenomeScan gene prediction, Similarity but not identity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
Submitted (07-DEC-2001) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                             AATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCC 1200
                                                                                                                                                                                                                                                                                                                                                                                       TTCTTCCTCTACAGCAAGCTCACCGTGGACAGAGCAGGTGGCAGCAGGGGAACGTCTTC 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTG 1320
CGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTC 1080
                                                                                                                                                               136
                                                                                                                                                                                                                                                                                                                                                                                                                                                    92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       315 CGAGAACCACAGGGGTGTACACCCTGCCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTC
                                                                                                                                                                                                                                                                                               AGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: cgapbs.refmail.nih.gov
Tissue Procurement: Louis Staudt
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Genome Sequence Centre,
BC Cancer Agency, Vancouver, BC, Canada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chordata; Craniata; Vertebrata; E
Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          George Yang, Scott Zuyderduyn, Marco Marra.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1679 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; C
Mammalia; Eutheria; E
1 (bases 1 to 1679)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   info@bcgsc.bc.ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Strausberg, R.
```

Page

```
PAT 14-FEB-2001
                                                                                                                                                                                                                            1073
                                                                                                                                                                                                                                                                             1133
                                                                                                                                                                                                                                                                                                                                1193
                                                                                                                                                                                                                                                                                                                                                         1113
                                                                                                                                                                                                                                                                                                                                                                                                             1173
                                                                                                                                                                                                                                                                                                                                                                                                                                                            833
                                                                                                                    953
                                                                                                                                                                                                   933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and Heard, C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 1437)
Anderson.D.R., Brams.P., Hanna,N., Shestowsky,W.S. and Heard
Human B7.1-specific primatized antibodies and transfectomas
expressing said antibodies
Patent: US 6113898-A 7 05-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                         ACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCC
                                                                                                                                                                                                                                                                                                                                                                                                             AGCGACATCGCCGTGGAGTGGGAGAAAAATGGGCAGCCGGAGAACAACTACAAGACCACG
                                                                                                                                               814 ITCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGGGGG
                                                                                                                                                                                                   CAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTG
                                                                                                                                                                                                                                                    AATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAA
                                                                                            CGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCCACGAAGACCCTGAGGTCAAG
                                                                                                                                                                                                                                                                                                                                                         CGGGATGACCTGACCAAGAACCAGGTCAGCCTGACCTGCTGGTCAAAGGCTTCTATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1437;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1147.2; DE
Pred. No. 7e-225;
); Mismatches 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ų.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     s 6113898-A 7 05-SEP-2000;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AR108865 1437 bp
Sequence 7 from patent US 6113898.
AR108865 GI:12825141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="unknown"
451 c 387 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unknown.
Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 1252; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
TITLE
                                                                                                                                                                                                 874
                                                                                                                                                                                                                                                    934
                                                                                                                                                                                                                                                                                                       994
                                                                                                                                                                                                                                                                                                                                1134
                                                                                                                                                                                                                                                                                                                                                         1054
                                                                                                                                                                                                                                                                                                                                                                                 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                    1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNT
                                                                                            754
                                                                                                                                                                                                                                                                                                                                                                                                             1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 4
AR108865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BASE
                                                                                                                qq
                                                                                                                                                                                                                          ρp
                                                                                                                                                                                                                                                                          Op
                                       ρý
                                                               g
                                                                                          οy
                                                                                                                                               ŏ
                                                                                                                                                                         В
                                                                                                                                                                                                Óχ
                                                                                                                                                                                                                                                                                                                            Db
                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δy
                                                                                                                          VERTINE TO A MAH 18747.1"

AD_XXCET_101="MELGLSWVFLVALLEGVQCEVQLVESGGGLVQPGGSLRLSCVVS

AD_XXCET_117511792"

AD_XXCET_101="MELGLSWVFLVALLEGVQCEVQLVESGGGLVQPGGSLRLSCVVS

GFTFSSYWMSWVRAPARGESSWYRDWFDPWGGGTLVTVSSASTKGPSVFPLAPSSKSTGG

FATALGCLYKDYFPEPVTVSWNSGALTLYGGVHFPATVLQSSGLTSLSSVYTVTPSSSSLGT

GTALGCLYKDYFPEPVTVSWNSGALTLYGGVHFPATVLQSSGLTSLSSVYTPSSSSLGT

GTALGCLYKDYFPEPVTVSWNSGRSCHXTHTCPPCPAPELLGGPSVFLEPPRRFUTLMI

SRTPEYTCVVVDVSHEDPEVKFNNYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQ

BUNGKERFRAKTVSNKALPAFIEKTISKAKGQPREPQVYTLPPSRDELTKNOVSLTCLV

KGFYPSDIAVEMESNGYPENNYKTTPFVLDSGGSFFLYSKLTVDKSRWQGGNVFSCSV

MHEALHNYTOKSLSLSPGK"
                                                                                                                                                                                                                                                                                                                                            ñ
                                                                                                         gamma
                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACAACCAAGGTGGACAAGAA 633
                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ----AGATTTCATAGACTGGGGCCAGGGAACACTAGTCACC 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GIGGAGCCCAAAICIIGIGACAAAACICACACAIGCCCACCGIGCCCAGCACCIGAACIC 693
                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                         constant
                                                                                                                                                                                                                                                                                                                                                                  GAGGTCCAGCTGGTGGAGTCTGGGGGGAGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATGGCAGCAGCTGGTACAGGGACTGGTTCGACCCCTGGGGCCAGGGAACCCTGGTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTCCAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCTCTGGGGGCACAGCGGCCCTGGCTGGTCAAGGACTACTTCCCCCGAACCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTA
                                                                                                                                                                                                                                                                                                                                           33;
                                                                                                                                                                                                                                                                                                                 Length 1679;
           /clone="MGC:31937 IMAGE:4851063"
/tissue_Type="Primary B-Cells from Tonsils"
/clone_lib="NIH_MGC_48"
/lab_host="PDH108-R"
                                                                                                       heavy
                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                /product="Similar to immunoglobulin (G3m marker)"
                                                                                                                                                                                                                                                                                                              Score 1156; DB 9;
Pred. No. 1.1e-226;
0; Mismatches 75;
                                                                                                                                                                                                                                                                          291 t
 /db_xref="taxon:9606"
                                                                /note="Vector: pOTB7"
                                                                                                                                                                                                                                                                             452 g
                                                                           63. .1475
/codon_start=1
                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 92.1%;
Matches 1254; Conservative (
                                                                                                                                                                                                                                                                            506 c
                                                                                                                                                                                                                                                                            430
                                                                                                                                                                                                                                                                            COUNT
                                                                                                                                                                                                                                                                                                                                                                    Н
                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        714
                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  634
                                                                             CDS
                                                                                                                                                                                                                                                                          BASE CC
ORIGIN
```

ö q 셤

ò

g

ò

ò

g

q

ð

g

g

ογ

g

ò

Q

ò

g

ò

g

ç

ô

ï

Ŋ

```
CCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTG 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    435
                                                                                                                                                                                                                                                                                495
                                                                                                                                                                          315
                                                                                                                                                                                                                                                                                                                555
                                                                                                                                                                                                                                                                                                                                                  615
                                                                                                    CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA 240
                                                                                                                                                                                                                            477
                                                                                                                                                                                                                                                                                                597
                                                                                                                                                                                                                                                                                                                                 657
                                                                                                                                                                                                                                                                                                                                                                                                                     735
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCAC 795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTC 975
                                                                                                                                                                                                                                                                                                                                                         777
                                           358 TCCTACATTTCACATTGTCGGGGTGGTGTCTCCTATGGAGGTTACTTCGAATTCTGGGGC
                                                                                                                                                                                                                  GAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       856 ACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTC
GAGGTGCAGCTGGTGGGGGGGGGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTC
                                  TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT
                                                                    CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                                                                                      241 CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC----
                                                                                                                                                                        ----AGATTTCATAGACTGGGGC
                                                                                                                                                                                                          CAGGGAACACTAGTCACCGTCTCCTCAGCCTCCAAAGGGCCCATCGGTCTTCCCCCTG
                                                                                                                                                                                                                                            TACTTCCCCGAACCGGTGACGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCAC
                                                                                                                                                                                                                                                                                                                                               556 CCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAAC
                                                                                                                                                                                                                                                                                                                                                                                 ACCAAGGTGGACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                   GAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGCCGTGGAGGTGCATAATGCCAAG
                                                                                                                                                                                                          316
                                                                                                                                                                                                                                           376
                                                                                                                                                                                                                                                            478
                                                                                                                                                                                                                                                                             436
                                                                                                                                                                                                                                                                                                                                                                                  919
                                                 118
                                                                                                                                                                                                                          418
                                 61
                                                                   121
                                                                                                                                                                       297
                                                                                                                                                                                                                                                                                                                                                                                                 718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           916
                                                                                                                                                                                                                                                                                                                                                                                                                   9/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      964
               g
                                δ
                                             g
                                                              οŽ
                                                                                Ω
                                                                                                               g
                                                                                                                                    QY
Db
                                                                                                                                                                                   qq
                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                        g
                                                                                              ŏ
                                                                                                                                                                 οy
                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                         οq
                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                           οy
                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                Qγ
                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ω
```

```
PRI 28-FEB-2002 complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Steven Jones, Jennifer Asano, Ian Bosdet, Yaron Butterfield, Susanna Chan, Readman Chiu, Chris Fjell, Erin Garland, Ran Guin, Letticia Hsiao, Martin Krzywinski, Reta Kutsche, Oliver Lee, Soo Sen Lee, Victor Ling, Carrie Mathewson, Candice McLeavy, Steven Ness, Pawan Pandoh, Anna-Liisa Prabhu, Parvaneh Saeedi, Jacqueline Schein, Duane Smailus, Michael Smith, Lorraine Spence, Jeff Stott, Michael Thorne, Miranada Tsai, Natasja van den Bosch, Jill Vardy, George Yang, Scott Zuyderduyn, Marco Marra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Clone distribution: MGC clone distribution information can be four through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov series: IRAL Plate: 42 Row: o Column: 20
This clone was selected for full length sequencing because it passed the following selection criteria: Hexamer frequency ORF analysis, GenomeScan gene prediction, Similarity but not identity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submission
Submitted (26-FEB-2002) National Institutes of Health, Mammalian
                                                                                                                                                                 1215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                             1317
                                                                                                                                                                                                                                                      AAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATG 1275
                                                                                                                                                                                                                                                                                                                                          1276 CATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
1318 AAGCTCACCGTGGACAAGAGCAGCTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATG
                                                                   GTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tissue Procurement: Dr. Mark Watson
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Genome Sequence Centre,
BC Cancer Agency, Vancouver, BC, Canada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1630 bp mRNA linear
Homo sapiens, clone MGC:39273 IMAGE:5440834, mRNA,
BC024289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                http://mgc.nci.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="MGC:39273 IMAGE:5440834"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /tissue_type="Spleen"
/clone_lib="NHLMGC_ll3"
/lab_host="DH10B-R"
/note="Vector: pOTB7"
64. .1479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BC024289.1 GI:18999464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NIH-MGC Project URL: h
Contact: MGC help desk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (bases 1 to 1630)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 info@bcgsc.bc.ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Strausberg, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                      1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                     1138
                                                                 1096
                                                                                                                                                                                                                                                                                                                                                                                        1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                            1156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 5
BC024289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCUS
                                                              QY
                                                                                                                                                          δ
                                                                                                                                                                                              Db
                                                                                                                                                                                                                                                                                            QQ
                                                                                                                                                                                                                                                                                                                                          Qγ
                                                                                                                                                                                                                                                                                                                                                                                     Dp
                                                                                                          QQ
                                                                                                                                                                                                                                                 ò
```

CDS

```
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
1 (bases 1 to 1659)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         info@bcgsc.bc.ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Strausberg, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                              1135
                                                                                                                                                                                                                                                                                  1195
                                                                                                                                                                                                                                                                                                                                                                                       1315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                   1255
                                                                                                                                                                                                                                                                                                                                                              1171
                                                                                                                                                                                                                                                                                                           1111
                                                                                                                                                                                                                                                                                                                                                                                                                                           1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1435
            895
                                                                                           871
                                                                                                                    1015
                                                                                                                                                                                                    991
                                                                                                                                                                                                                                                        1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
BC014667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCUS
                                       δ
                                                               qq
                                                                                         φy
                                                                                                                   q
                                                                                                                                               δy
                                                                                                                                                                     qq
                                                                                                                                                                                                   ^{\circ}
                                                                                                                                                                                                                           QQ
                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                  ă
                                                                                                                                                                                                                                                                                                                                                                                                                                        Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
         /product="Unknown (protein for MGC:39273)"
/protein_id="AARI24289.1"
/db_xref="G1:1899989.1"
/db_xref="G1:1899989.1"
/db_xref="G1:1899980.1"
/db_xref="G1:1899980.1"
/tranalation="MEGGERWYFLVAILEGVOCEVOLVESGGGLVKPGGSLRLSCAAS
GETESSYSMNWYROAFGKGLEWYSSNSSYSYTYADSVKRRFTISRDNAKNSLYLOM
NSLRAEDTAAVYCARDLRGQLTSVWFPLFDUGRGCTLVTVGSSGSYRGPSVFPLAPSSKSTS
GGTAALGCLVKDYFPEPFYTSWNSGALTSGYHTFPAVLGSSGLYSLSSVYTVPSSSGL
TQTYICNVNHKPSNTKVDKKVEPKSCDKTHTCPPCPAPELLGGPSVFLEPPKPKDTLM
STRTPEYTOVTVUVNSALEDBEVKRNWYNGSVETHTRAKTPFPAPEDYSSTGL
QDWLNGREYKGKVSNTALAPBTERTISKAGPREPQVYTLPPSRDELTKNOVSLTCLL
VKGFYPSDIAVEWESNGOPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQGGNVFSCS
                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        570
                                                                                                                                                                                                                                                                                     TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----AGATTTCATAGACTGGGGCCAGGGAACACTAGTC 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCGCGGGGCACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATC 750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           751 TCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTC 810
                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACACCAAGGTGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCCAAGGTGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCACCTCTGGGGGCCACAGCGGCCCTGGGCTGGTCAAGGACTACTTCCCCGAACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCACCTGAA
                                                                                                                                                                                                                                                                      1 GAGGTGCAGCTGGTGGAGTCTGGGAGGCTTGGTAAAGCCCCGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                         CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATTCTGATAATTATGCAACA
                                                                                                                                                                                                                                                                                                                                                                                                    CCAGGGAAGGGGCTGGAGTGGGTCTCATCGA-----TGAGTAGTAGTAGTAGTTACATA
                                                                                                                                                                                                                                                                                                                                                                                                                                CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATCTCCGCCAGCTAACTTCCTACTGGTACTTCGATCTCGGGGCCGTGGCACCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCACCTCTGGGGGCACACAGCGGCCCTGGCTGCTCAAGGACTACTTCCCCGAACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACCTTCCCGGCTGTC
                                                                                                                                                                                                                                            36;
                                                                                                                                                                                                                 DB 9; Length 1630;
                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                85.9%; Score 1146.6; DB 9; 91.6%; Pred. No. 9.2e-225; iive 0; Mismatches 79;
                                                                                                                                                             VMHEALHNHYTQKSLSLSPGK"
518 c 442 g
                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                          Matches 1250;
                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                Local
                                                                                                                                                                           BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         511
                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                         295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      297
                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

```
1659 bp mRNA linear PRI 26-SEP-2001
Homo sapiens, Similar to immunoglobulin heavy constant gamma 3 (G3m
marker), clone MGC:23153 IMAGE:4850078, mRNA, complete cds.
BC014667.1 GI:15779221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Steven Jones, Jennifer Asano, Ian Bosdet, Yaron Butterfield, Susanna Chan, Readman Chiu, Chris Fjell, Erin Garland, Ran Guin, Letticia Hislao, Martin Krzywinski, Reta Kutsche, Oliver Lee, Soo Sen Lee, Victor Ling, Carrie Mathewson, Candice McLeavy, Steven Ness, Pawan Pandoh, Anna-Liisa Prabhu, Parvaneh Saeedi, Jacqueline
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostom1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
Submitted (24-SEP-2001) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                    AAAACCATCTCCAAAGCCAAAGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCA 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACGCCTCCCGTGCTGGACTCCGACGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGAC 1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCAC 1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGAC
                                                                                GAGCAGTACAACAGCACGTACCGTGTGTGTCAGCGTCCTCACCGTCCTGCACCAGGACTGG
                                                                                                                                                                                                                                                                                                               AAAACCATCTCCAAAAGCCAAAAGGGCAGCCCCGAGAACCACAGGTGTACACCTGCCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: MGC help desk
Binal: cgapbs rémail.nih.gov
Tissue Procurement: Dr. Mark Watson
cDNA Library Preparation: Rubin Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Genome Sequence Centre,
BC Cancer Agency, Vancouver, BC, Canada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; E
Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1291 AACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NIH-MGC Project URL: http://mgc.nci.nih.gov
```

```
493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 7
AX419496
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
                                                                                                                                                      q
                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                       Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                     Dp
                                                                                          a
                                                                                                                         Ω
                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŏ
                                                                     οy
                                                                                                                                                                                   Qγ
                                                                                                                                                                                                                                                                                                  ΩÝ
                                                                                                                                                                                                                                                                                                                                                        οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                              YDFOTELLIG-"AAH14667.1"

ABOVENCEYOLVESGGGLVKAGGSLRLSCAAS

ACANSHARATOR "MKFGLSWIFLPAILKGVQCEVQLVESGGGLVKAGGSLRLSCAAS

ALTAINSIATION "MKFGLSWIFLPAILKGVQCEVQLVESGGGLVKAGGSLRLSCAAS

GFSFSDAWMSWARAPPECKGLEWIFLRANTHGWNYWGEGTTVTVSSASTKGPSVFPL

APSSKGTSGGTAALGCLVYNDYPFPEPVTVSWNSGALTSGVTFFAVLQSSGLYSLSSVY

TVPSSSLGTQTYITOWHKPSNTKONKKVEPKSCDKTHTCPPCPAPELLGGPSVFLPP

PKPKDTLAISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEGYNSTYRV

VSVLTVTLADQWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVTTLPPSRDELTK

NQVSLTCLVKGFYPSDIAVBWESNGOPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQ

QGNVFGCSVMHEALHNHYTQKSLSLSPGK"
                                                                                                                                                                                                                                                          3
                                                        can be found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ij
  Stott
                                                                                                                                                                                                                                                           gamma
Smith, Lorraine Spence, Jeff Stot
Natasja van den Bosch, Jill Vardy
                                                     Clone distribution: MGC clone distribution information can be for
through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Series: IRAL plate: 34 Row: a Column: 20.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      306 GAGTACGCTGCACACGTGAAAGGCAGATTCATCATCTCTAGAGACGACTCAAAATACATG 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     366 GTGTATATGCAGATGAACAGTCTGAAGACGGAGGACACGGCCGTCTATTACTGTAATACA 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCCAGGGAACACTAGTCACCGTCTCCTCAGCCTCCAAGGGCCCATCGGTCTTCCCC 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACTACTICCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTG 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATGCCCGCTCAGTAGGATCCTTGGAGTGGCCCAATTATTATCACGGTATGAACGTCTGG 485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGGCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAG 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGGTGCAGCTGGTGGAGTCTGGGGGGGGGTTGGTAAAGCCCGGGGGGGTCCCTTAGACTC 60
                                                                                                                                                                                                                                                           constant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    186 TCCTGTGCAGCCTCTGGATTCAGTTTCAGTGATGCCTGGATGAGCTGGGCCCGCCAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----CAGATTTCATAGACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 9; Length 1659;
                                                                                                                                                                                                                                                  /product="Similar to immunoglobulin heavy (G3m marker)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               82; Indels
                            Marco Marra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1145.8; DB 9;
Pred. No. 1.3e-224;
                                                                                                                                      /db_xref="taxon:9606"
/clone="MGC:23153 IMAGE:4850078"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                 /tissue_type="Spleon"
/clone_lib="NH_MGC_113"
/lab_host="UH10B-R"
/note="Vector: pOTB7"
69. .1508
                                                                                                                         /organism="Homo sapiens"
 Duane Smailus, Michael
                            George Yang, Scott Zuyderduyn,
              Thorne, Miranada Tsai,
                                                                                                                                                                                                                                                                                                                                                                                                                                             ь
                                                                                                                                                                                                                                                                                                                                                                                                                                           457
                                                                                                                                                                                                                                         /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  85.8%;
90.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                           505 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 1253; Conservative
                                                                                                                .1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
Schein, I
Michael
                                                                                                                                                                                                                                                                                                                                                                                                                                           397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                          BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          г
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               909
                                                                                                                                                                                                                            CDS
                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                οχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  οy
```

```
PAT 18-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                              CTCCCAGCCCCCATCGAGAAAACCATCTCCAAAAGCCAAAAGGCAGCCCCGAGAACCACAG 1032
                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGTACACCCTGCCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGC 1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGTACACCCTGCCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGC 1265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGAACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTAC 1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1213 AGCAAGCTCACCGTGGACAAAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTG 1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAA 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         912
                                                                                                                                                          732
                                                                                                                                                                                                              792
                                                                                                                                                                                                                                                                852
                                                                                                                                                                                                                                                                                                                                                                          972
                                                   612
                                                                            785
                                                                                                      672
                                                                                                                               845
                                                                                                                                                                                   905
552
                                                                                                     AACACCAAGGIGGACAAGAAAGIGGAGCCCAAATCIIGIGACAAAACICACACATGCCCA
                                                                                                                                                                                                                         CTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGGAGAGCAATGGGCAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      793 CACGAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCC
                                                 GTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGC
                                                               GTCCTCCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCC
CACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACC
                                                                                                                                                                                                              AAGGACACCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1 from Patent W00188132. AX419496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GI:21523919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AX419496.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                            786
                                                                                                     613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                       999
                                                 553
                                                                         726
                                                                                                                                                        673
                                                                                                                                                                                                           733
                                                                                                                                                                                                                                                                                         996
                                                                                                                                                                                                                                                                                                                                              1026
                                                                                                                                                                                                                                                                                                                                                                        913
                                                                                                                                                                                                                                                                                                                                                                                                1086
                                                                                                                                                                                                                                                                                                                                                                                                                          973
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1506
```

```
1042 (
                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
                                                                                                                                                                                                                                                 1222
                                                                                                                                                                                                                                                                  1315
                                                                                                                                                                                                                                                                                                    1375
802
                                                                                                                                                           1135
                                                                                                                                                                                              1195
                                                                                                                                                                                                                                                                                     1282
                895
                                   862
                                                   955
                                                                     922
                                                                                                        982
                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                               RESULT 8
AX080951
                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                            SOURCE
                                                                                                                                                                                                                                                                                                                                                 LOCUS
             οp
                                 οy
                                                   Pp
                                                                     Óγ
                                                                                     q
                                                                                                        δy
                                                                                                                       g
                                                                                                                                         δy
                                                                                                                                                         a
                                                                                                                                                                           οy
                                                                                                                                                                                           g
                                                                                                                                                                                                               δy
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                    δy
                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                  5
                 and
                 human monoclonal antibodies
                                                                                                                                                                                    TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                          294
                                                                                                                                                                                                                                                                                            296
                                                                                                                                                                                                                                                                                                              354
                                                                                                                                                                                                                                                                                                                               321
                                                                                                                                                                                                                                                                                                                                                414
                                                                                                                                                                                                                                                                                                                                                                  381
                                                                                                                                                                                                                                                                                                                                                                                   474
                                                                                                                                                                                                                                                                                                                                                                                                    441
                                                                                                                                                                                                                                                                                                                                                                                                                     534
                                                                                                                                                                                                                                                                                                                                                                                                                                       501
                                                                                                                                                                                                                                                                                                                                                                                                                                                         594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     894
                                                                                                                                  Gaps
                                                                                                                                                             GAGGTGCACTGTTGGAGTCTGGGGAGGCTTGGTACAGCCTGGGGGGGTCCCTGAGACTC
                                                                                                                                                                                              CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC----
                                                                                                                                                                                                                                                                                                      ACACTAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCC
                                                                                                                                                                                                                                                                                                                                                                           AGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGGACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGGACAAGAGAGTTGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCACCTGAACTCGCGGGGGCACCGTCAGTCTTCCTTTCCCCCCAAAACCCAAGGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGGTGCAGCTGGTGGAGTCTGGGGGGAGGCTTGGTAAAGCCCCGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                      CCAGGGAAGGGGCTCGAGTGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                                                                                                                                                                                                         CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                ------AGATTTCATAGACTGGGGCCAGGGA
                                                                                                                                                                                                                                                                                                                                                GATCGAGAGGTTACTATGATAGTTGTACTTAATGGAGGCTTTGACTACTGGGGGCCAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                    TCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGACTACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCGGCTGTCCTACAGTCCTCAGGACTCTACTCCTCAGCAGCGTGGTGACCGTGCCTCC
                                                                                                                                  45;
                                                                                                                Length 1430;
                                                                                                                                 Indels
                                                                                                               Score 1136; DB 6;
Pred. No. 1.4e-222
                                                                                      ų
                                                                                                                                 0; Mismatches
       Hooper, D.C. and Dietzschold, B.
Rabies virus specific neutralizing )
nucleic acids and related methods
Patent: WO 0188132-A 1 22-NOV-2001;
                                                                                      270
                                                                 /organism="Homo sapiens"
/db_xref="taxon:9606"
438 c 396 a 270
                                          Thomas Jefferson University (US)
Location/Qualifiers
                                                                                                               85.1%;
llarity 90.9%;
Conservative
                                                            1. .1430
                                                                                                                        Best Local Similarity
Matches 1249; Conserv
                                                                                       ø
                                                                                                                 Query Match
                                                             source
                                                                                      BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                   415
                                                                                                                                                   Н
                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                          235
                                                                                                                                                                                                                                                                                                                                                355
                                                                                                                                                                                                                                                                                                                                                                                                                     475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             562
                                                                                                                                                                                    61
                                                                                                                                                                                                     121
                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                              295
                                                                                                                                                                                                                                                                                                                                                                 322
                                                                                                                                                                                                                                                                                                                                                                                                    382
                                                                                                                                                                                                                                                                                                                                                                                                                                       442
                                                                                                                                                                                                                                                                                                                                                                                                                                                         535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8,35
                                                                                                                                                                                                                                                                                                                               297
       AUTHORS
                                 JOURNAL
REFERENCE
                                                   FEATURES
                 TITLE
                                                                                                 ORIGIN
                                                                                                                                                    ð
                                                                                                                                                                  셤
                                                                                                                                                                                    ò
                                                                                                                                                                                                    g
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                               ó
                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
```

```
ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-FEB-2001
                                                                                                                                                                                                                                                                                                1101
                                                                                                                                                                                                                                                                                                                                   1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2790 GAGGTGAAGCTGGTGGAGTCTGGAGGGCTTGGTACACCTGGGGGTTCTCTGAGTCTC 2849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     polynucleotide-based
                   1015 CAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCCAACAAAGCCCTCCCAGCC
                                                                                                                                                                                                                                                             1075 CCCATCGAGAAAACCATCTCCAAAGCCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACC
                                                                                                                                                                                                                                                                                                  CTGCCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGGTCAAA
                                                                                                                                                                                                                                                                                                                    1102 GGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCCAGCCGGAGAACAAC
                                                                                                                                                                                                                                                                                                                                                                                            1255 TACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCTTCTTCTTCTTTATAGCAAGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GAGGTGCAGCTGGTGGAGTCTGGGAGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTC
CCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAG
                                                                                                                                                CAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCC
                                                                                                                                                                                                                          CCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                1162 TACAAGACCACGCCTCCCGTGCTGGACTCCGACGCCTCCTTCTTCCTCTACAGCAAGCTC
                                                                        CCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTCGTCAGCGTCCTCACCGTCCTGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6; Length 7521;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1133.8; DB 6
Pred. No. 3.6e-222;
); Mismatches 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  construct"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ىد
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Flt-3 ligand-encoding polynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        vaccine enhancer
Patent: WO 0109303-A 1 08-FEB-2001;
VICAL INCORPORATED (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7521 bp
Sequence 1 from Patent WO0109303
AX080951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="synthetic c
/db_xref="taxon:32630"
/note="cDNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualiflers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1858 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GI:13169888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             84.9%;
90.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         synthetic construct.
synthetic construct
artificial sequences.
1 (bases 1 to 7521)
Hermanson, G.G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1988 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AX080951.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ៧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 1238;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
```

```
1164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1104
                                                                                                                                                                                                                                                                                                                  1165 AAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACC 1224
                                                                                                                                                                                                                                                                                                                                                                                                                                                        3510 ccrgaacrccrgggggaaccgrcagtcrrccrcrccccccaaaacccaaggacaccrc 3569
                                                                                                                                         GAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACCTTCCCG 3329
                                                                                              564
                                                                                                                                                                                                                                                                                                                                                624
                                                                                                                                                                                                                                                                                                                                                                                         684
                                                                                                                                                                                                                                                                                                                                                                                                                                     744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTGAACTCGCGGGGGCACCGTCAGTCTTCCCCCCCAAAACCCAAGGACACCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGACGTCACGAAGACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGGTCAAGTTCAACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAAGCCCTCCCAGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCCCCATCCCGGGATGAGCTGACCAGGACCAGGTCAGCCTGACCTGCTCAAAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCCAGCCGGAGACACTAC
            GAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACCTTCCCG
                                                                                                                                                                                                                                                                                                                                                 AGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTG
CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                             GAGTACAGTGCATCTGTGAAGGGTCGGTTCACCATCTCCAGAGATAATTCCCAAAGCATC
                                                                                   CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACA---
                                                                                                                                                                         CTAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCC
                                                                                                                                                                                   GCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGC
                                          CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                               ---GATTTCATAGACTGGGGCCAGGGAACA
                                                                                                                                                                                                                  TCCAAGAGCACCTCTGGGGGCACAGCGGCCTGGGCTGCTGGTCAAGGACTACTTCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    865
                                                                                                                                                                                                                                        3210
                                                                                                                                                                                                                                                                                  3270
                                                                                                                                                                                                                                                                                                                           3330
                                                                                                                                                                                                                                                                                                                                                                      3390
                                                                                                                                                                                                                                                                                                                                                                                                               3450
                     2910
                                                              2970
                                                                                                                                                                                             3150
                                                                                                                                                                                                                  385
                                                                                                                                                                                                                                                              445
                                                                                                                                                                                                                                                                                                        505
                                                                                                                                                                                                                                                                                                                                                 265
                                                                                                                                                                                                                                                                                                                                                                                           625
                                                                                                                                                                                                                                                                                                                                                                                                                                      685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         805
                                                                                                                               298
                                                                                                                                                                         325
 121
                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QY
Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                         οy
                                                                                                                                                                                                                                                                                                                                                                                                              QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ω
                                                           QQ
                                                                                 Qy
Db
                                                                                                                                             g
                                                                                                                                                                   δλ
                                                                                                                                                                                    qq
                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                        QΥ
                                                                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                                                                 à
 δ
                    g
                                        ΟY
                                                                                                                            οy
```

```
2
                                                                                                                                                         PAT 06-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                  sedneuce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGGAAGGGGCTGGAGTCTCAGGTATTAGTGGTAGTGGTGGCA-----GCACAT 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTACGCAGACTCCGTGAAGGCCGGTTCACCATCTCCAGAGACAATTCCAAGAACACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACAGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----ACTGGGGCCAGGGAACACTAGTCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATACCGGGGGGGGGGTTTGGGACCCCATTGACTACTGGGGCCAGGGAACCCTGGTCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTCCAAGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 AGGTGCAGCTGGTGGAGTCTGGGGGGGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTCT
4050 GTGGACAAGAGCAGCAGCAGCAGCAGCAACGTCTTCTCATGCTCGTGATGCATGAGGCT
                                 GTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCT
                                                                                                                                                                                                                                                                                                                                                                 acid
                                                                                                                                                                                                                                                                                                         gi:16548881
                                                                                                                                                                                                                                                                                                                                                                                                                                            33;
                                                                                                                                                                                                                                                                                                                                                                                                                        1353
                                                                                       CTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                  amino
                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                           linear
                                                                                                                                                                                                                                                                        ō
                                                                                                                                                                                                                                                                                                                                                                 for
                                                                                                                                                                                                                                                                                               Corporation (US)
eb 7, 2002 this sequence version replaced
Location/Qualifiers
                                                                                                                                                                                                                                                                         and methods
                                                                                                                                                                                                                                                                                                                                                                                                                        DB 6;
                                                                                                                                                                                                                                                                                                                                                                  /note="nucleotide sequence coding
                                                                                                                                                                                                                                                                                                                                                                                                                                             89;
                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1129.6; DB 6
Pred. No. 2.8e-221;
                                                                                                                                                                                                                                                                                                                                        /organism="synthetic construct"
/db_xref="taxon:32630"
                                                                                                                                                           DNA
                                                                                                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                            Hoogenboom, H.R. and Henderikx, M.P. Mucin-1 specific binding members and Patent: WO 0175110-A 27 11-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                      232
                                                                                                                                                         1353 bp
WO0175110.
                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                      376
                                                                                                                                                          AX277242
Seguence 27 from Patent
AX277242
                                                                                                                                                                                        AX277242.2 GI:18614077
                                                                                                                                                                                                                                                                                                                                                                                                                        84.6%;
91.0%;
                                                                                                                                                                                                                synthetic construct.
synthetic construct
artificial sequences
                                                                                                                                                                                                                                                                                                                                                                          seq26"
431 c
                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 91.0
Matches 1236; Conservative
                                                                                                                                                                                                                                                                                                           Feb 7,
                                                                                                                                                                                                                                                                                                Dyax (
On Fel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCATAG-
                                                                                                                                                                                                                                                                                                                                                                                                                         Match
                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  302
                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 416
                                                                                                   4110
                                 1225
                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                          VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                    RESULT 9
AX277242
                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                          Query
                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                           LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ΟŸ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Qγ
                               Ω
                                                     qq
                                                                             óγ
                                                                                               q
```

φ 셤 õ q ö q õ q ò q ò g

```
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 1240;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                             source
                                                                                                         TITLE
JOURNAL
                                                                                                                                  REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNT
                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    257
                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         òλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ΩD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AK098817

Homo sapiens cDNA FLJ25951 fis, clone SYN00365, highly similar to Homo sapiens mRNA for immunoglobulin lambda heavy chain.

AK098817.1 G1:21758944

oligo capping; fis (full insert sequence).

Homo sapiens synovial membrane (knee) cDNA to mRNA, clone_lib:SYN Clone.SYN00365.

Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                              1016 CCATCTCCAAAGCCAAAGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCC 1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTATCCCA 1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACC 1294
                             535
                                                                                                         634
                                                                                                                                                          694
                                                                                                                                                                   775
                                                                                                                                                                                                                                                                                       835
                                                                                                                                                                                                                                                                                                                                       895
                                                                                                                                                                                                            754
                                                                                                                                                                                                                                                              814
                                                                                                                                                                                                                                                                                                               874
                                                                                                                                                                                                                                                                                                                                                                 934
                                                                                                                                                                                                                                                                                                                                                                                         955
CGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTAC
            TGGAGCCCAAATCTTGTGACAAAACTCACATGCCCACCGTGCCCAGCACCTGAACTCG
                                                                                                                                                                                                                       716 TGGGGGGACCGTCAGTCTTCCTCTTCCCCCAAAACCCAAGGACACCCTCATGATCTCCCC
                                                                                                                                                                                                                                                                      AGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGA
                                                                                                                                                                                                                                                                                                                                                                         AGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCA
                                                                                                                                                                                                                                                                                                                        CCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGACATCGCCGTGGAGTGGGAAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGC
                                                                                                                                                                                                         CGGGGGCACCGTCAGTCTTCCTCTTCCCCCAAAACCCAAGGACACCCTCATGATCTCCC
                                                                                                                                                                                                                                                          GGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGT
                                                                                                                                                                                                                                                                                                            TCAACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                ATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCCCGTGCTGGACTCCGACGGCTCCTTCCTTCTACAGCAAGCTCACCGTGGACAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTACACGCAGAGGCCTCTCCCTGTCTCCGGGTAAA 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTACACGCAGAAGAGCCTCTCCTTAAGTCCGGGAAAA 1353
                                                                          536
                                                                                                                                                                                                                                                                                 776
                                                                                                                                                                                                                                                                                                                                     836
                                                                                                                                                                                                                                                                                                                                                             875
455
                                                   515
                                                                                                                             969
                                                                                                                                                      635
                                                                                                                                                                                959
                                                                                                                                                                                                        695
                                                                                                    575
                                                                                                                                                                                                                                                         755
                                                                                                                                                                                                                                                                                                           815
                                                                                                                                                                                                                                                                                                                                                                                     968
                                                                                                                                                                                                                                                                                                                                                                                                               935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                         926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 10
AK098817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
```

g ò

ò g ò g ò g ò g

q ò

ò g ŏ g

g ò

ORGANIŚM

VERSION KEYWORDS SOURCE

```
Sugano, S. and Suzuki, Y.

Sugano, S. and Suzuki, Y.

Sugano, S. and Suzuki, Y.

Direct Submission

Submitted (08-JUL-2002) Sumio Sugano, Institute of Medical Science, University of Tokyo, Laboratory of Genome Structure, Human Genome Center; Shirokane-dai, 4-6-1, Minato-ku, Tokyo 108-8639, Japan (E-mail:cdnal@ims.u-tokyo.ac.jp, Tel:81-3-5489-5416)

NEDO human cDNA sequencing project supported by Ministry of Economy, Trade and Industry of Japan; cDNA full insert sequencing: Research Association for Biotechnology (RAB); cDNA 1lbrary construction and 5'-end one pass sequencing: Institute of Medical Science, University of Tokyo, Laboratory of Genome Structure, Human Genome Center; 3'-end one pass sequencing: RAB; clone selection for full insert sequencing: RAB; clone selection for incomplete the sequencing of the the seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /translation="mercles" takegocevolldsgggluopegsleriscaas
GETESRSAMSWVRQAPGKGLEWVSSITASGSDTYDADFVKGRFTISRDNSRNTLYLQM
SELGEDTAVYTCARDSSSCSTSACYTOVSTAVASSTKGPSVFPLAPSSKST
SGGTAALGCLVKDYFPEDVYTSWNSCALTSCVHTFPAVLGSGLYSLSSVYTVPSSSL
GTQTYICNVNHKPSNTKVDKKVEPKSCOKTHTCPPCPAPELLGGPSVFLFPPKRDTL
HQDWLNGKEYCVVVDVSHEDPEWKFWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVL
HQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQYTLPPSRBELTKNOVSLTC
LVKGFYPSDIAVEBSNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQGNVFSC
SVMLECLHNHYTQKSLSLSPGK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2,
                                                                                                Kanehori,K., Ishibashi,T., Chiba,Y., Fujimori,K., Hiraoka,S.,
Tanai,H., Watanabe,S., Ishida,S., Ono,Y., Hotuta,T., Watanabe,M.,
Suzuki,Y., Hata,H., Nakagawa,K., Mizuno,S., Moringa,M.,
Kawamura,M., Sugiyama,T., Irie,R., Otsuki,T., Sato,H.,
Nishikawa,T., Sugiyama,A., Kawakami,B., Nagai,K., Isogai,T. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCTGTGCGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAGGGAAGGGCTTCGAGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GAGGTGCAGCTGGTGGAGTCTGGGGGGGGTAAAAGCCCGGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAGGAAGGGTCTGGAGTGGGTCTC----AAGTATTACTGCCAGTGGTAGTGACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC----
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /tissue_type="synovial membrane (knee)"
/clone_lib="SYN"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1127.6; DB 9;
Pred. No. 7.1e-221;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="cloning vector: pME18SFL3"
80. 1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              80. 1498
/note="unnamed protein product"
                                                                                                                                                                                                                                                                                                           Sugano, S.
NEDO human cDNA sequencing project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="SYN00365"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /protein_id="BAC05421.1"
/db_xref="G1:21758945"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /codon_start=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84.5%;
90.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
```

```
1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACAAGAGCAGGTGGCAGCAGCAGCGTCTTCTCATGCTCCGTGATGCATGAGGCTCTG 1287
                                                                                                                                                                                                                                                                                                                                                          1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCATCCCGGGATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGCTCGTCAAAGGCTTC 1107
                                                                                                                                                                                                        790
                                                                                                                                                                                                                                             850
                                                                                                                                                                                                                                                                747
                                                                                                                                                                                                                                                                                 910
                                                                                                                                                                                                                                                                                                    807
                                                                                                                                                                                                                                                                                                                                        867
                                                                                                                                                                                                                                                                                                                                                                            927
                                                                                                                                                                                                                                                                                                                                                                                                                 987
                                                                                                                                670
                                                                                                                                                  267
                                                                                                                                                                                      627
                                                                                                                                                                                                                           687
                                     387
                                                                         447
                                                                                                             507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCACGCCTCCCGTGCTGGACTCCGACGCCTCCTTCTTCCTCTACAGCAAGCTCACGTG
                                                                                                                                                GAACTCGCGGGGGCACCGTCAGTCTTCCTCTTCCCCCAAAACCCAAGGACACCCTCATG
                                                                                                                                                                                                                                                                         GAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCTGCCC
-AGATTTCATAGACTGGGGCCAGGGAACACTA
                  GATTCCTCAAGTTGTAGCACTTCTGCCTGCTATGATCACTTCTGGGGCCAGGGAACCCTG
                                     GTCACCGTCTCCTCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCTCCTCC
                                               GTCACCGTCTCCTCAGCCTCCACCAAGGCCCATCGGTCTTCCCCCTGGCACCTCCTCC
                                                                         AAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGACTACTTCCCCGGA
                                                                                   CCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACCTTCCCGGCT
                                                                                                                       TTGGGCACCCAGCCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGAC
                                                                                                                                                                                                                           AAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACGTGCCCACCGTGCCCAGCACTT
                                                                                                                                                                                                                                                                                                     ATCTCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAG
                                                                                                                                                                                                                                                                                                                                        GTCAAGTTCAACTGGTACGTGGACGCCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGG
                                                                                                                                                                                                                                                                                                                                                                             GAGGAGCAGTACAACAGCACGTACCGTGTGTCAGCGTCCTCACCGTCCTGCACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                 TGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACAACCACTACACGCAGAAGAGCCTCTCCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                    671
                                                                                                                                                                                                                                                                                                                                                                                                                                    1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1451
                  431
                                                                                                                                                                                                                           628
                                                                                                                                                                                                                                                                                                     748
                                                                                                                                                                                                                                                                                                                      911
                                                                                                                                                                                                                                                                                                                                        808
                                                                                                                                                                                                                                                                                                                                                           971
                                                                                                                                                                                                                                                                                                                                                                             868
                                                                                                                                                                                                                                                                                                                                                                                                                                                      988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1391
                                                                         388
                                                                                            551
                                                                                                              448
                                                                                                                                                  208
                                                                                                                                                                                       268
                                                                                                                                                                                                                                             791
                                                                                                                                                                                                                                                                688
                                                                                                                                                                                                                                                                                 851
                                                                                                                                                                                                                                                                                                                                                                                                                 928
297
                                     328
                                                       491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            οq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                        g
                                                                                                                               g
                                                                                                                                                                 Ob
                                                                                                                                                                                                  a
                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                           ζ
                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ
 ò
                q
                                    òγ
                                                      g
                                                                       ò
                                                                                                              δ
                                                                                                                                                 Ω
                                                                                                                                                                                     Qγ
```

```
/product="human IgG1 neutralizing heavy chain with leader"
/protein_id="AAR21613.1"
/protein_id="C1:66498013.1"
/db_xref="c1:664980"
/translation="MPEGLSWLFLVAILTGVQCEVQLLEESGGDLVQPGRSLRLSCST SGFSFGDYPVNWFRQAPGKGLEWLGTVRSRLYGGTLQYAASVEGRFTISRDDSKSIAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LHMNSLKSEDTAVYCGVPVANIDYMOGGTLVTVSSAGTKGPSVFLAPSSKGTSGT
AALGCLVKDYFPEPVTVSWASGALTSGVHTFPAVLQSSGTKGPSVFLAPSSKGTSGGT
YICNVAHKPSNTTKVDKKSLSFKSCDKTHTCPPCPAPELLGGESVFLPPPRKDTLMIS
TFEVTCVVVVVVSVBEDPEVKTNWYVDGVEVHNAKTKPREEGGTNSTTRVPVSVLTVLHQD
WLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTTCLVK
GFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQOGNVFSCSVM
HEALHNYTQKSLSLSPGK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                           SYN 03-JAN-2000
chain with
                                                                                                                                                                                     neutralizing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAGGGAAGGGGCTCGAGTGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATTATGCGGAGTCTGTGAAGGGGAAATTCACCCATCTCAAGAGATGATTCAAAATCTAGA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                          Blvd,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 GAGGTGCAGCTGGTGGAGTCTGGGGAGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 12; Length 1419;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15;
                                                                                                                                                                                                                                                                          Gilman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGT
                            linear
Ig gamma
                                                                                                            synthetic construct.
synthetic construct
artificial sequences.
1 (bases 1 to 1419)
Pilkington, G.R., Gilmour, J.R. and Gilmour, P.S.
Three dimensional structure of a fully human IgG1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1127.2; DB 14; Pred. No. 8.7e-221; Transfels 108; Indels
                                                                                                                                                                                                                                                                          Corp., 1871 NW
                                                                                                                                                                                                                              2 (bases 1 to 1419)
Pilkington, G.R., Gilmour, J.R. and Gilmour, P.S.
Direct Submission
Submitted (12-ANG-1997) Intracel Corp., 1871 N
Issaquah, WA 98027, USA
Location/Qualifiers
                                           human
                                                                                                                                                                                                                                                                                                                                construct"
                            mRNA
                            1419 bp mF construct RSV neutralizing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             274
                                                                                                                                                                                                                                                                                                                                               /db_xref="taxon:32630"
                                                                                                                                                                                                                                                                                                                   1. .1419
/organism="synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Б
                                                                                                                                                                                                                                                                                                                                                             /clone="pHC2-5#7"
10._.1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               383
                                                                                                                                                                                                                                                                                                                                                                                        /codon_start=1
/transl_table=11
                                                       leader mRNA, complete cds
                                                                                    GI:6649879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      84.48;
90.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               436 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 1227; Conservative
                                                                                                                                                                                                    antibody for RSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                Unpublished
                                                                       AF019036
AF019036.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ď
                                           Synthetic
                            AF019036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
ORIGIN
                                          DEFINITION
                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          370
                                                                    ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               295
                                                                                                                                                                       AUTHORS
TITLE
                                                                                                                                                                                                                               REFERENCE
AUTHORS
RESULT 11
AF019036
                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                              CDS
                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                 SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
source
                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                             BASE COUNT
ORIGIN
                                                                   AUTHORS
TITLE
                                                                                        JOURNAL
REFERENCE
                                                                                                      AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                          122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      233
          ACCESSION
                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                             62
                                                                                                                                                                                                                                                                                                                                                                                                                                            119
                VERSION.
KEYWORDS
                                                            REFERENCE
                                                                                                                                           FEATURES
                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ρp
                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                         òγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Db
                                                                                                                                                                                                                                                                           CAGGGGAACGTCTTCTCATGCTCCGTGATGCATCAGGCTCTGCACAACCACTACACGCGG 1305
                                                                                                                                                                                                                                                                                                                                                                 GTGGAGTGGGAGGAGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTG 1185
                                                                                                                                                                                                                                                                                                                                                                                                                    GACTCCGACGCCTCCTTCCTTCTTCTACAGCAGCTCACCGTGGACAAGAGCAGGTGGCAG 1245
                                                                                                      699
                                                                                                                     645
                                                                                                                                   729
                                                                                                                                                 705
                                                                                                                                                                               765
                                                                                                                                                                                             849
                                                                                                                                                                                                            825
                                                                                                                                                                                                                                                                     945
       ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTCCAAGAGCACCTCTGGGGGGCACA
                            GCGGCCCTGGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCGTGGAAC
                                   TGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAA---GTGGAGCCCAAA
                                                                                                                                               TCTTGTGACAAAACTCACACATGCCCACGTGCCCAGCACCTGAACTCGCGGGGGCACCG
                                                                                                                                                      GTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTAC
                                                                                                                                                                                                                GCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATGAGCTG
                                                                                      TACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCCAGACCTACATC
                                                                                                                                                                                                                                                                    ACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAG
                                                                                                                                                                                                                                       GTGGACGCCTGGAGGTGCATAATGCCAAGACAAAAGCCGCGGGAGGAGCAGTACAACAGC
                                                                                                                                                                                                                                                                                                                                                         ACCAAGAACCAGGTCAGCCTGACCTGCTGGTCAAAGGCTTCTATCCCAGCGACATCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
349
                                          490
                                                                       550
                                                                                                                                                                                                                        850
                            409
                                                         469
                                                                                      529
                                                                                                                  589
                                                                                                                                               949
                                                                                                                                                                                                          991
                                                                                                                                                                                                                                      826
                                                                                                                                                                                                                                                                    988
                                                                                                                                                                                                                                                                                                                                                                                                                                1270
                                                                                                                                                                                                                                                                                                                            1006
                                                                                                                                                                                                                                                                                                                                           1090
                                                                                                                                                                                                                                                                                                                                                         1066
                                                                                                                                                                                                                                                                                                                                                                        1150
                                                                                                                                                                                                                                                                                                                                                                                      1126
                                                                                                                                                                                                                                                                                                                                                                                                    1210
                                                                                                                                                                                                                                                                                                                                                                                                                   1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1390
ò
            g
                            ò
                                         g
                                                         ò
                                                                      g
                                                                                    ò
                                                                                                 g
                                                                                                                             a
                                                                                                                                              ò
                                                                                                                                                           g
                                                                                                                                                                                        g
                                                                                                                                                                                                                                                   q
                                                                                                                  ò
                                                                                                                                                                            ò
                                                                                                                                                                                                         õ
                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                  ç
                                                                                                                                                                                                                                                                               QQ
                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

AF027159 1401 bp mRNA linear PRI 16-NOV-1997 Homo saplens immunoglobulin gamma heavy chain ( ${\rm T6J/g}$ ) mRNA, partial

RESULT 12 AF027159 LOCUS ' DEFINITION

```
/cddon_start=1
/cddon_start=1
/product."inmunoglobulin gamma heavy chain"
/product."inmunoglobulin gamma heavy chain"
/protein_id="AAB8647.1"
/db_xref="G1:2623547.1"
/db_xref="G1:2623547"
/translation="MaFGLSWVFLVALLRGVQCQVQLVESGGGVVQPGRSLRLSCVASGFTESSYPMTWOPAPGKGLEWVASIEYDGSYKTXVDSMGRALTSRONSKMTPLTLEM
NSLTAEDTAAYYCARTACFRAYDFWQCGTLUTVSSASTKGPSYFPLAPSSKGTSGGTA
ALGCLVKDYFPPEPYTVSMNSGALTSGVHTFPPAVLQSSGLYSLSSVVTVPSSSLGTQTY
ICNNNHRFSWRTVDVKVEPREQTRHTPCPAPALGGSPSYFTLAHSRTP
PEYTCVVVDVSHEDPEVYERWYVDGVPEHTYCDFAPETTSTRHTPVLQSNGTVTVLHQNWM
NGKEYKCKVSNKALPAPIEKTISKAKVQPREPQVYTLPPSRDELTKNOVSLTCLVKGF
YPSDLAVEWESNGQPENNYKTTPPPVLDSVGSFFLYSKLTVDKSRWQGGNVFSCSVMHE
                                                                                                               Dukaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi;
Mammalia: Eutheria: Primates: Catarrhini; Hominidae; Homo.
1 (bases I to 1401)
Molecular expression of human antibody and prediction of antigen-binding structure (Abstract)
2 (bases I to 1401)
Chas, H., Kashima, K., Tomozawa, T. and Chiba, J.
2 (bases I to 1401)
Chas, H., Kashima, K., Tomozawa, T. and Chiba, J.
Submitted (29-SEP-1997) Department of Biological Sciences and Technology, Science University of Tokyo, 2641 Yamazaki, Noda, Chiba
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTG----- 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACAC 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 AGGIGCAGCIGGIGGAGTCTGGGAGGCTTGGTAAAGCCCGGGGGGGTCCCTTAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /db_xref="taxon.9606"
/clone="TAPCx6JC5"
/note="TAPCx6JC5 hybridoma was made by fusing an
transformed B cell line, TAPC301-C14 with triple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1401;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    chimpanzees
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="anti-HBs antibody; protects
hepatitis B virus infection"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1124.2; DB 9;
Pred. No. 3.6e-220;
0; Mismatches 98; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  266 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
1. .1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  380 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ALHNHYQQRSLSLSPGK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             hybridoma, 6JC5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                           GI:2623586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /dene="T6J/g"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /dene="T6J/g"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    84.2%;
91.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . .>1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 91.0
Matches 1227; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .>1403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  432
                                                                         Homo sapiens.
                                                                                                   Homo sapiens
AF027159
AF027159.1
                                                                                                                                                                                                                                                                                                                                                                                                                 278, Japan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

```
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BASE COUNT
                                                                                                          ORGANISM
 RESULT 13
AK093806
                                                                 VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                TITLE
JOURNAL
                                                                                                                                                                                                                                                                                           TITLE
JOURNAL
                                                       ACCESSION
                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGACTCCGACGCCTCCTTCTTCCTACAGCACCTCACGTGGACAAGAGCAGGTGGC 1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGTGGAGTGGGAGGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGC 1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGC 1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCATCTCCA 1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGCCAAAGGGCAGCCCCGAGAACCACGGTGTACACCCTGCCCCCATCCCGGGATGAGC 1063
                                                                                     463
                                                                                                                                                                                                                                      712
                                           403
                                                                472
                                                                                                         532
                                                                                                                                                                       583
                                                                                                                                                                                              652
                                                                                                                                                                                                                  643
                                                                                                                                                                                                                                                           703
                                                                                                                                                                                                                                                                                                     763
                                                                                                                                                                                                                                                                                                                          832
                                                                                                                                                                                                                                                                                                                                                823
                                                                                                                                                                                                                                                                                                                                                                     892
                                                                                                                                                                                                                                                                                                                                                                                         883
                                                                                                                                                                                                                                                                                                                                                                                                               952
                                                                                                                                                                                                                                                                                                                                                                                                                                   943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1073 AAGCCAAAGTGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGCITGCITTAACGCCTATGACTTCTGGGGCCAGGGAACCCTGGTCACCGTCTCTCAG
                                                                                                                                         GACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCTCCAGCAGCTTGGGCACCCAGCACCT
                                                                                                                                                                                                                            713 AATCITGIGACAAAACTCACACATGCCCACGTGCCCAGCACTGAACTCCTGGGGGGAC
                                                                                                                                                                                                                                                                                                               ----TACAGATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCCTCAG
                                          CCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTAGAGAGCACCTCTGGGG
                                                    GCACAGCGGCCCTGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCGT
                                                                                                GGAACTCAGGCGCCCTGACCAGCGGCGTGCACCTTCCCCGGCTGTCCTACAGTCCTCAG
                                                                                                                                                                                          593 GACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCT
                                                                                                                                                                                                                ACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAAGTGGAGCCCA
                                                                                                                                                                                                                                                          AATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCACCTGAACTCGCGGGGGCAC
                                                                                                                                                                                                                                                                                                     CGTCAGTCTTCCTCTTTCCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCCCTG
                                                                                                                                                                                                                                                                                                                                               AGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGT
                                                                                                                                                                                                                                                                                                                                                                                        ACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                  GCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1013 AGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAACCATCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTATCCCAGCGACATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGAAGAGCCTCTCCCTGTCTCCGGGTAAA 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1373
                     353
                                          344
                                                              413
                                                                                                       473
                                                                                                                                                                                                                584
                                                                                                                                                                                                                                                          644
                                                                                                                                                                                                                                                                                                    704
                                                                                                                                                                                                                                                                                                                         773
                                                                                                                                                                                                                                                                                                                                               764
                                                                                                                                                                                                                                                                                                                                                                                        824
                                                                                                                                                                                                                                                                                                                                                                                                             893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              944
                                                                                   404
                                                                                                                            464
                                                                                                                                                                      524
                                                                                                                                                                                                                                                                                                                                                                                                                                   884
 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
à
                   a
                                         à
                                                          g
                                                                                                     g
                                                                                                                            δ
                                                                                                                                            qq
                                                                                                                                                                οŽ
                                                                                                                                                                                   g
                                                                                                                                                                                                             Qγ
                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                           Бb
                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ω
                                                                             ò
```

```
M. Unpublished

See 1 to 1642)

See I chases 1 to 1642)

Submitted (04-JUL-2002) Takao Isogai, FLJ Project(HRI Team); 2-6-7

Birect Submission

Leading Committed (04-JUL-2002) Takao Isogai, FLJ Project(HRI Team); 2-6-7

Kazusa-Kamatari, Kisarazu, Chiba 292-0812, Japan

Kazusa-Kamatari, Kisarazu, Chiba 292-0812, Japan

Kazusa-Kamatari, Kisarazu, Chiba 191-438-52-3975, Fax:81-438-52-3986)

NEDO human CDNA sequencing project supported by Ministry of

Economy, Trade and Industry of Japan; CDNA full insert sequencing:

Research Association for Biotechnology (RAB); CDNA inli insert sequencing:

Research Association for Biotechnology (RAB); Chibary

Construction: Helix Research Institute (HRI) (supported by Japan

KRY, Technology Center etc.); 5' - 6' - a'-end one pass sequencing: RAB,

HRI, and Biotechnology Center, National Institute of Technology and

Evaluation; clone selection for full insert sequencing: HRI and

RAB; annotation: HRI and RAB.

SITCE

1. .1642
                                                                                                                                                                                                                                                                                                                                                                                                 Ishibashi, T., Kanehori, K., Yosida, M., Watanabe, S., Ishida, S., Ono, Y., Hotuta, T., Hiraoka, S., Murakawa, K., Takiguchi, S., Kusano, J., Watanabe, M., Fujimori, K., Tanai, H., Ishida, M., Vamashita, H., Chiba, Y., Sugiyama, T., Itie, R., Otsuki, T., Sato, H., Kawai, Hio, Y., Saito, K., Nishikawa, T., Kimura, K., Matsuo, K., Nakamura, Y., Sekine, M., Kikuchi, H., Kanda, K., Wagatsuma, M., Takahashi-Fuji, A., Oshima, A., Sugiyama, A., Kanda, K., Wagatsuma, M., Sugano, S., Nagahari, K., Masuho, Y., Nagai, K., and Isogai, T., Naco, human, CDNA, sequencing project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /translation="merglswvvvalatkgvocgvhlvesggdlvqpgrslrlsctvs
GFARGDYAMAWYRQAPGKGLEWVALITNNARGGATELASSVRGRFTISGDDSKNIAYL
GRARGDYAMAWYRQAPGKYYVDSGGRREDAFDVWGQGTWLVSSASTKGPSVFPLA
PSSKSTSGGTAALGCLWKDYFPPEPVTSWNSGALTSCVHTFPAVLQSSGLYSLSSVVT
VPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVFLFPP
1642 bp mRNA linear PRI 15-JUL-2002 to sapiens cDNA FLJ36487 fis, clone THYMU2017844, highly similar Homo sapiens mRNA for immunoglobulin lambda heavy chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVV
SVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGOPREPQYTLPPSREEMTKN
QVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1;
                                                                                                                                                                                                                                                                                                               Euteleostomí;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTCCA 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 GTGCAGCTGGTGGAGTCTGGGGGGGGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTCTCC
                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Butele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   45;
                                                                                                                                                                       insert sequence).
to mRNA, clone_lib:THYMU2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1123.4; DB 9;
Pred. No. 5.2e-220;
0; Mismatches 96; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /tissue_type="shymus"
/clone_lib="THYMU2"
/note="cloning vector: pME18SFL3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="unnamed protein product"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GNVFSCSVMHEALHNHYTQKSLSLSPGK"
509 c 450 q 306 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /protein_id="BAC04226.1"
/db_xref="GI:21752739"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="THYMU2017844"
                                                                                                                                                                    oligo capping, fis (full ins
Homo sapiens shymus cDNA to
clone:THYMU2017844.
                                                                   to Homo sapiens mRNA for
AK093806
AK093806.1 GI:21752738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               84.1%;
89.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .1517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                       Homo sapiens
                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best_Local Similarity
Matches 1236; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ø
   AK093806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δλ
```

```
66. .1499
                                                                                                                                                                                                 Homo sapiens.
Homo sapiens
                                                                                                                                                                                                                                                                                                               Paterson, T
                                                                                                                                                                                                                                                                                                9661813
                                                                                                                                                                                            region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        V_region
                                                                                                                                               LOCUS
DEFINITION
1281
                                  1341
                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
JOURNAL
                                                  1219
                                                                                     1279
                                                                                                                                                                                                                                            AUTHORS
TITLE
                                                                                                                                                                                                                                                                             JOURNAL
MEDLINE
                  1159
                                                                                                      1461
                                                                                                                               RESULT 14
HSIGG1LH
                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                             CDS
                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                   SOURCE
                  δ
                                 qq
                                                  ò
                                                                  QQ
                                                                                     Qγ
                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCCCCATCGAGAAACCATCTCCAAAGGCCAGGCCCCGAGAACCACAGGTGTAC 1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAC 1158
                                                                                                                               318
                                                                                                                                                                                 560
                                                                                                                                                                                                                                                                                      740
                                                                                                                                                                                                                                                                                                       618
                                                                                                                                                                                                                                                                                                                                                        860
                                                                                                                                                                                                                                                                                                                                                                                                            798
                                                                                                                                                                                                                                                                                                                                                                                                                            980
                                                                                                                                                                                                                                                                                                                                                                                                                                             828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  978
                                                           243
                                                                                                              440
                                                                                                                                                                378
                                                                                                                                                                                                  438
                                                                                                                                                                                                                  620
                                                                                                                                                                                                                                   498
                                                                                                                                                                                                                                                    680
                                                                                                                                                                                                                                                                    558
                                                                                                                                                                                                                                                                                                                       800
                                                                                                                                                                                                                                                                                                                                        678
                                                                                                                                                                                                                                                                                                                                                                         738
                                  TATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGACTG
                                                                    ---AGATTTCATAGACTGGGGCCAG
                                                                                                                                               441 GTCTATTATTATGATAGTGGTGGTAACCGTAGGGAGGATGCTTTTGATGTCTGGGGGCCAA
                                                                                                                                                                         CCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCTTGGTCAAGGACTAC
                                                                                                                                                                                                          CCAGCACCTGAACTCGCGGGGGCACCGTCAGTCTTCCTCTTCCCCCCAAAACCCCAAGGAC
                                                                                                                                                                                                                                                                                                                                                                                 ACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                     GACCCTGAGGTCAAGTTCAACTGGTACGTGGACGCGCGTGGAGGTGCATAATGCCAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGGTCTCCAACAAAGCCCTCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCCCCATCGAGAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGAAGGGGCTCGAGTGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACACAT
                                                                                                                                                                GGAACACTAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCA
                                                                                                                                                                                                                                  TTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACC
                                                                                                                                                                                                                                                                    TTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCC
                                                                                                                                                                                                                                                                                                                                        AAGGTGGACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCCTGCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGGTC
                                                                                             TATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1221
                                                          184
                                                                           321
                                                                                                             381
                                                                                                                                                                                501
                                                                                                                                                                                                 379
                                                                                                                                                                                                                                  439
                                                                                                                                                                                                                                                   621
                                                                                                                                                                                                                                                                                     681
                                                                                                                                                                                                                                                                                                                                       619
                                                                                                                                                                                                                                                                                                                                                        801
                                                                                                                                                                                                                                                                                                                                                                         619
                                                                                                                                                                                                                                                                                                                                                                                          861
                                                                                                                                                                                                                                                                                                                                                                                                           739
                                                                                                                                                                                                                                                                                                                                                                                                                           921
                                                                                                                                                                                                                                                                                                                                                                                                                                                              981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1099
        201
                         124
                                         261
                                                                                             244
                                                                                                                                                               319
                                                                                                                                                                                                                 561
                                                                                                                                                                                                                                                                    499
                                                                                                                                                                                                                                                                                                                                                                                                                                             199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  919
                                                                                                                              297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
        g
                                                                                                                                                                               g
                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                         ò
                                        q
                                                          à
                                                                          g
                                                                                             ò
                                                                                                          셤
                                                                                                                              à
                                                                                                                                             g
                                                                                                                                                               ò
                                                                                                                                                                                                 ò
                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
```

```
HSIGGILH 1673 bp mRNA linear PRI 19-AUG-1998
Homo sapiens mRNA for immunoglobulin lambda heavy chain.
Y14737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /translation="weeglswvflvallrgvocqvolvesgggvvopgrslrlscaas
GFTFSNYGMHWVRQAPGKGLEWVAAIWYDGSNKYYADSVKGRFTISRDNSKNTLYMQM
NSLRAEDTAVYYCAREGRWVRYTYTTIGYYFDYWGGGTLYVSSASTKGPSVFBLAP
SSKTSGGTAALGCLVVDYFPEPVYVSMNSGALTSGVHTFAVLQSSGLYSLSSVYTV
PSSSLGTQTYTCNVNHRPSNYRVDRNEPKSCDKTHYCPPCFAPELLGGPSVFLFPPR
PKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref="taxon:9606"
/cell_line="human /mouse (NS-0) hetero-hybridoma cell line
LHM70/45.3 (THERAD 06)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VLTVLHQDMLNGKEYKCKVSNKALEAPIEKTISKAKOOPREPOVYTLEPSREEHTKNO
VSLTCLVKGFYPSDLAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQG
NVFSCSVMHEALHNHYTQKSLSLSPGK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Y14737.1 GI:2765424
constant region; IgG1; immunoglobulin; lambda heavy chain; variable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Direct Submission
Submitted (03-SEP-1997) T. Paterson, National Science Laboratory,
Scottish Nat. Blood Transfusion Service, 12 Bristo Place,
Edinburgh, EH1 1EZ, Scotland, UK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Euteleostomi;
                                                                                                                                                                                                     AAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAC 1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Paterson, T., Innes, J., McMillan, L., Downing, I. and Carter, M.C. Variation in 1961 heavy chain allotype does not contribute to differences in biological activity of two human anti-Rhesus (D) monoclonal antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   123. ..509
/gene="IgG1L"
/Product="immunoglobulin lambda heavy chain variable region"
                                                                                                                                                                                                                                                                                           GAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCCTGTCCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                          AACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAG
                                                                                                                                                                         CTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Eutele
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           chain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lambda heavy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Immunotechnology 4 (1), 37-47 (1998) 98326459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /product="immunoglobulin
/protein_id="CAA75032.1"
/db_xref="GI:2765425"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
1. .1673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="IgG1L"
66. .1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /gene="IgG1L"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /gene="IgG1L"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              123. .1496
/qene="IqG1L"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mammalia; Eutheria; 1
1 (bases 1 to 1673)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 1673)
```

```
/codon_start=1
/transl_table=11
/transl_table=11
/product="heavy chain antibody 3D6"
/product="heavy c
AGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCG 1077
                                                                                                                                                                            1438 TGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCCTGTCCCGGGGTAAAT
                                                                                                                         1154 AGAACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACA
                                                                                                                                                                                                                                                                                                                                                                                              1214 GCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCGGGAACGTCTTCTCATGCTCCGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                   1274 TGCATGAGGCTCTGCACACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGGTGCAGCTGGTGGAGTCTGGGGGGGGGGTTGGTAAAGCCCGGGGGGGTCCCTTAGACTC
                                   TCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCC
                                                      TCCCAGCCCCCATCGAGAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGG
                                                                                                                                                                                                                                                     TGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGGAGAGCAATGGGCAGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1549,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          83.9%; Score 1120.2; DB 6;
ilarity 90.1%; Pred. No. 2.4e-219;
Conservative 0; Mismatches 88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="synthetic construct"
/db_xref="taxon:32630"
101. .1528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1549 bp
CDNA insert.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FSCSVMHEALHNHYTQKSLSLSPGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         417 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A21385
Plasmid DNA with human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         synthetic construct.
synthetic construct
artificial sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A21385.1 GI:583507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           463 C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
Matches 1241; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A21385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                  1198
                                                                                                                                                                                                                                                                                     1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 15
A21385
 1018
                                                                                                                                                                              1034
                                                                                                                                                                                                                                                     1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1498
                                   914
                                                                     1078
                                                                                                                                            1138
                                                                                                         974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ζ
                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                 Ω
                                                               Op
                                                                                                         Qγ
                                                                                                                                   q
                                                                                                                                                                          Ω
                                                                                                                                                                                                              Op
                                                                                                                                                                                                                                                 QΥ
                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                         Ω
                                                                                                                                                                                                                                                                                                                                                                                          QΥ
                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACGAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCA 853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCG 913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGTGCCCAGCACCTGAACTCGCGGGGGCACCGTCAGTCTTCCTCTTCCCCCCAAAACCCA 733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCC 793
                                                                                                                                                                                                                                                                                                          243
                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC 121
510. .1499
/gene="IgG1L"
/product="immunoglobulin lambda heavy chain constant
                                                                                                                                                               Gaps
                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCC
                                                                                                                                                                                                                                                                                                                                                                ATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                  418 AGGGTGGGTGCGTACGATATACTACGGTGACTACTATCGGATACTACTTTGACTACTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCAGGGAACACTAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACACCAAGGTGGACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC-----
                                                                                                                                                                                                 AGGTGCAGCTGGTGGAGTCTFGGGGGGGGTTGGTAAAGCCCCGGGGGGGTCCCTTAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        54;
                                                                                                                             Length 1673;
                                                                                                                                                             Indels
                                                                                                                                                               83;
                                                                                                                         Score 1121.2; DB 9;
Pred. No. 1.5e-219;
); Mismatches 83;
                                                                       300
                                                                         б
                                                                       452
                                                                                                                                                           0;
                                                                                                                           84.0%;
90.1%;
                                                                         U
                                                                                                                                                               Conservative
                                                                       508
                                                        region
                                                                                                                                              Similarity
                                                                         ø
                                                                                                                                              Best Local Sim.
Matches 1245;
   C_region
                                                                                                                             Query Match
                                                                     BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              614
                                                                                                                                                                                                   ~
                                                                                                                                                                                                                                  1.24
                                                                                                                                                                                                                                                                                                                                           122
                                                                                                                                                                                                                                                                                                                                                                                                                 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                    298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          358
                                                                                                                                                                                                                                                                      62
                                                                                                                                                                                                                                                                                                          184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                  ΩD
                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \delta \lambda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   òγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                      δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Qγ
```

PAT 19-DEC-1994

Gaps 9

48;

1317 1213

1153

21 12 27 27 24 33 30	451 318 511 378 571 438		871 738 931 798 991 858	918 1111 978 1171 1038 1231 1098
GAAGTGCAGCTGGTGGAGTCTGGGGGGGGGCTTGGTACAGCCTGGCAGGTCCCTGAGACT TCCTGTGCAGCTAGCGATTCACTTTCAGTGGCTACTGGATGCCTGGCTCCGGGTCCGCCAGGC TLIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	ATAGA	TTCCCCGAACCGGTGACGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACC	SCACCTGAACTCGCGGGGGCACCGTCAGTCTCTCTCTCCCCCCAAACCCGAACCGAGCGGGGGGCACCGTCAGTCTTCCTCTTCCCCCCCAAACCCAAGCGGGGGGCACCGTCAGTTTTCTTTTTTTT	AAGCCGCGGAGGAGCAGTACAACAGCGACGTGCGTCCACCGTCCACCGTCTG AAGCCGCGGGAGGAGCAGTACAACGTCCGTCGTGTGGTCACCGTCCTCCACCGTCTGTGTTTTTTTT
158 61 218 121 121 278 332 241	7 7 11 22 0	439 632 692 692 559 752 619	0 0 0 0 1 1	859 1052 919 1112 979 1172 1039
		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Search completed: April 26, 2003, 06:31:23 Job time : 2682.46 secs

```
April 26, 2003, 04:55:21; Search time 1766.31 Seconds (without alignments) 12240.775 Million cell updates/sec
                                                                                                                                                                                             1 gaggtgcagctggtggagtc.........ccctgtctccgggtaaatga 1335
                                                                                                                                                                                                                                                                                                        32308132
GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                        16154066 seqs, 8097743376 residues
                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                               OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                         IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           em_gss_mam:
em_gss_mus:*
em_gss_other:*
em_gss_pro:*
em_gss_rod:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              em_gss_inv:*
em_gss_pln:*
em_gss_vrt:*
                                                                                                                                                    US-09-674-716B-18
1335
                                                                                                                                                                                                                                                                                                                                      Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 em_gss_hum:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               em_gss_fun:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  em_estba:*
em_esthum:*
em_estin:*
em_estov:*
em_estpo:*
em_estpo:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    em_estfun:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 em_estom:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gb_est1:*
  gb_est2:*
  gb_htc:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gb_est3:*
gb_est4:*
gb_est5:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  *:ssb_dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                      EST:*
                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                            Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Database :
                                                                                                                                                                                                                                                                          Searched:
                                                                                                                                                                                           Sequence:
                                                                                             Run on:
                                                                                                                                                             Title:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	BQ062878 AGENCOURT	BQ709771 AGENCOURT	BQ706140 AGENCOURT	BG755166 602711488	BQ708857 AGENCOURT	BM007892 603617577
SUMMARIES	ID	BQ062878	BQ709771	BQ706140	BG755166	BQ708857	BM007892
	DB	14	14	14	. 12	14	13
	Length	1020	947	928	926	886	901
os Ouerv	re Match Length DB II	67.3	64.5	63.5	62.9	62.6	62.3
	Scc	8.868	8.098	847.2	839.2	835.4	831.2
Recult	No.	г	7	e	4	5	9

# 821.2 61.9 918 14 B0062185   8 821.2 61.4 995 14 B001155   10 819.6 61.4 995 14 B001155   11 805.6 60.3 88 14 B0011515   12 797 59.7 10.31 14 B0064886   13 794.2 59.5 10.31 14 B0061895   14 805.6 61.4 995 14 B001152   15 784.2 59.5 10.31 14 B0061895   15 784.2 59.5 10.31 14 B0061895   16 784.2 59.6 940 14 B001152   17 782.5 59.7 10.31 18 B0010897   18 77.6 58.2 991 14 B001059   22 774.5 58.2 991 14 B001059   23 774.5 58.2 991 14 B001059   24 777.2 57.8 981 14 B001059   25 752.5 56.8 945 14 B001059   26 749.6 55.1 997 14 B001059   27 749.6 55.1 997 14 B001059   28 749.5 56.1 10.12 14 B091056   29 740.6 55.1 991 14 B001059   29 740.6 55.1 991 14 B001059   20 740.6 55.3 991 14 B001059   21 772.2 57.8 981 14 B001059   22 756.2 56.6 945 14 B001059   23 737.6 55.3 991 14 B001059   24 752.5 56.1 10.12 14 B091055   25 752.5 56.1 10.12 14 B091055   26 749.5 56.1 10.12 14 B091059   27 749.6 54.7 944 14 B001059   28 740.6 55.3 991 14 B001059   28 727.4 54.5 935 13 B00005   28 727.4 54.5 935 13 B00005   28 727.4 54.5 931 14 B001059   28 727.4 54.5 931 14 B001059   29 740.6 55.3 991 14 B001059   20 726.6 54.4 988 12 B055604   20 726.6 54.4 988 12 B05604   20 726.6 54.4 9	BQ708022 AGENCOURT BQ063185 AGENCOURT BQ711255 AGENCOURT BQ0711251 AGENCOURT BQ0711727 AGENCOURT BQ705928 AGENCOURT BQ705928 AGENCOURT BQ705928 AGENCOURT BQ710593 AGENCOURT BQ710593 AGENCOURT BQ710593 AGENCOURT BQ710593 AGENCOURT BQ710304 AGENCOURT BQ710304 AGENCOURT BQ710313 AGENCOURT BQ71033 AGENCOURT BQ71033 AGENCOURT BQ71233 AGENCOURT BQ71233 AGENCOURT BQ71233 AGENCOURT BQ71233 AGENCOURT BQ71234 AGENCOURT BQ71239 AGENCOURT BQ71239 AGENCOURT BQ71239 AGENCOURT BQ71239 AGENCOURT BQ71239 AGENCOURT BQ71239 AGENCOURT BQ71239 AGENCOURT BQ71239 AGENCOURT BQ71239 AGENCOURT BQ70793 AGENCOURT BQ70793 AGENCOURT BQ70793 AGENCOURT BQ70893 AGENCOURT BQ70893 AGENCOURT BQ708902 AGENCOURT BQ708902 AGENCOURT BQ708953 AGENCOURT BQ708953 AGENCOURT BQ709853 AGENCOURT BQ709853 AGENCOURT BQ709853 AGENCOURT BQ709853 AGENCOURT BQ709863 AGENCOURT BQ709863 AGENCOURT BQ709863 AGENCOURT BQ709863 AGENCOURT BQ709863 AGENCOURT BQ709863 AGENCOURT BQ709863 AGENCOURT BQ709863 AGENCOURT BQ709864 AGENCOURT BQ709869 AGENCOURT BQ709869 AGENCOURT BQ709869 AGENCOURT	pp mRNA linear EST 02-APR-2002 iomo sapiens CDNA clone IMAGE:5924420  Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.  Mammalian Gene Collection (MGC)  1.D.  in Laboratory 1.M.A.G.E. Consortium (LLML) Bioscience Corporation a distribution information can be Consortium/LLNL at:  ### 131 ### 131 ### 131 ### 131 ### 131 ### 131 ### 131 ### 131 ### 131 #### 131 #### 131 #### 131 #### 131 ########
7 826.4 61.9 918 14	· · · · · · · · · · · · · · · · · · ·	1020 bp LMGC_99 Homo hordata; Crar rimates; Cata ii.nih.gov/. of Health, Man isberg, Ph.D. nih.gov cou Staudt tion: Rubin I by: The I.M. gencourt Bios MGC clone dis MGC clone dis A.A.G.E. Conse s start: 21 s stop: 681.
## 821.2 61.9 918  ## 821.2 61.5 1029  ## 821.2 61.5 1029  ## 821.2 61.5 1029  ## 821.2 61.4 887  ## 797 59.7 1031  ## 792.8 59.6 949  ## 792.8 59.6 949  ## 792.8 59.6 949  ## 792.8 59.6 949  ## 772.2 57.8 981  ## 770.6 58.2 991  ## 770.6 58.2 991  ## 770.6 58.2 991  ## 770.6 58.2 991  ## 770.6 58.2 991  ## 770.6 58.2 991  ## 770.6 58.3 904  ## 770.6 56.0 1026  ##		NIH  Section 1. In
## 821.2 61.9  ## 821.2 61.9  ## 821.2 61.9  ## 821.2 61.9  ## 821.2 61.9  ## 821.2 61.4  ## 821.2 61.4  ## 821.2 61.4  ## 821.2 61.4  ## 792.8 59.5  ## 792.8 59.6  ## 722.9 774 58.2  ## 722.9 56.3  ## 722.9 747.6 58.1  ## 723.2 56.3  ## 723.2 56.3  ## 723.2 56.3  ## 723.2 56.3  ## 723.2 56.3  ## 723.2 54		G826949 equence equence ms Metazo Eutheri 1 to 10 institut institu
RESULT 1  B056.6  10 819.6  11 805.6  11 805.6  11 805.6  11 805.6  11 77.7  12 77.7  13 79.4  14 792.8  15 77.7  16 78.7  17 7.7  18 8 8 7.7  18 9 7.7  18 7 7 7  18 7 7  18 7 7  18 7 7  18 7 7  18 7 7  18 7 7  18 7 7  18 7 7  18 7 7  18 7 7  18 7 7  18 7 7  18 7  1	00000000000000000000000000000000000000	mRNA Seque in Character in the control of the cont
P. 7 8 8 8 8 10 10 10 8 8 11 11 11 11 11 11 11 11 11 11 11 11	011101	BOC BOC BOC BOC BOC BOC BOC BOC
	\tag{Page}{	RESULT 1 BQ062878 LCOCUS LCOCUS ACCESSION VERSTON KEYWORDS SOURCE ORGANISK TITLE JOGRAAL COMMENT

```
/organism="Homo sapiens"
/db_xref="taxon.9606"
/clone=Inbes:6208683"
/clone_lib="NIH_MGC_113"
/lab_host="DH10B (phage-resistant)"
/note="Organ: spleen; Vector: poTB7; Site_1: XhoI; Site_2:
/note="Organ: spleen; Vector: poTB7; Site_1: XhoI; Site_2:
-ECORI; CDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using Zap-CDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: this is a
                                                                                                                                                                                                                                                        947 bp mRNA linear EST 16-JUL-2002 AGENCOURT_8353965 NIH_MGC_113 Homo sapiens cDNA clone IMAGE:6278583 BQ709771
                                                                                                                                                                                                                                                                                                                                                                                                           Euteleostom1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: cgapbs remail.nih.gov
Tissue Procurement: Dr. Mark Watson
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LicCA2466 row: m column: 16
High quality sequence start: 3
High quality sequence stop: 675.
                                1171 ACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGAC 1230
                                                                                            CAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGNAGAAACTACTAGACC 815
                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens

Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleoston
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 947)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Conpublished (1999)

Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         464 GGAACTCAGGCGCCCTGACCAGCGGCGTGCACCTTCCCGGCTGTCCTACAGTCCTCAG 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        524 GACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCT 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                 816 ACGCCTCNCGTGCTGGACTCCGACGCTCCTTCTTCTTCTTCTACAGCAAGCTCACCGTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9, GGAACTCAGGCGCCCTGACCAGGGGGGGGGCACACCTTCCCGGCTGTCCTACAGTCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           64.5%; Score 860.8; DB 14; Length 947; 99.2%; Pred. No. 1.6e-197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                              AACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAA 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7;
                                                                                                                                                                              Pred. No. 1.6e-197;
); Mismatches 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           252 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NIH_MGC Library
320 c 25:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
0
                                                                                                                                                                                                                                                                                                                                         BQ709771.1 GI:21848670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             225
                                                                                                                                                                                                                                                                                                                                                                              human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 865;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                        SOURCE
                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BASE COUNT
 756
                                                                                                                                                                                             936
                                                                                                                                                             1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      69
                                                                                                                                                                                                                                            RESULT 2
BQ709771
                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                          KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                         VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                              LOCUS
                                                              g
                              ò
                                                                                              οy
                                                                                                                           QQ
                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                        /note="Organ: lymph; Vector: pOTB7; Site_1: XhoI; Site_2: EcoRI; cDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript IR (Life Technologies). Note: this is a NIH_MGC
                                                                                                                                                                                                                                                                                                                                           Ĥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGA--GAACAACTACAAGACC 1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              872
                                                                                                                                                                                                                                                                                                                                                                         452
                                                                                                                                                                                                                                                                                                                                                                                                                                      512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         635
                                                                                                                                                                                                                                                                                                                                                                                                      95
                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTGGGGGGACCGTCACTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTC
                                                                                                                                                                                                                                                                                                                                                                      393 CACCICTGGGGCACAGCGGCCCTGGGCTGCTGGTCAAGGACTACTTCCCCGAACCGGT
                                                                                                                                                                                                                                                                                                                                                                                       GACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACCCAGACCTACATCTGCAACGTGAATCACAAGCCCCAGCAACACCAAGGTGGACAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGCGGGGGCACCGTCAGTCTTCCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCCACGAAGACCCTGAGGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGGCCTCCTGCACGACTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAATGGCAAGGAGTACAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       633 AGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCACCTGAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2;
                                                                                                                                                                                                                                                                                                         14; Length 1020;
                                                                                                                                                                                                                                                          2 others
                                                                                                                                                                                                                                                                                                                                         Indels
           /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5924420"
/tissue_lbb="NIH_MGC_99"
/tissue_type="IVmphoma, cell line"
/lab_host="DH10B (phage-resistant)"
                                                                                                                                                                                                                                                                                                                                        19;
                                                                                                                                                                                                                                                                                                       Score 898.8; DB 14
Pred. No. 1.1e-206;
0; Mismatches 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      166 t
                                                                                                                                                                                                                                                           б
1. .1020
/organism="Homo
                                                                                                                                                                                                                                                                                                       67.3%;
97.8%;
                                                                                                                                                                                                                                                           O
                                                                                                                                                                                                                                                                                                                       Best Local Similarity 97.8 Matches 921; Conservative
                                                                                                                                                                                                                                           Library
                                                                                                                                                                                                                                                        239
                                                                                                                                                                                                                                                                                                         Query Match
source
                                                                                                                                                                                                                                                        BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     969
                                                                                                                                                                                                                                                                                                                                                                                                    36
                                                                                                                                                                                                                                                                                                                                                                                                                                     153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      989
                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

þe

ö

 $\sim$ 

```
Similarity
                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                               Best Local
                                                                                source
                                                                                                                                                                                                                        COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1062
                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                            462
                                                                                                                                                                                                                                                                                                                                  522
                                                                                                                                                                                                                                                                                                                                                     71
                                                                                                                                                                                                                                                                                                                                                                         583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     611
                                                                                                                                                                                                                                                                                                                                                                                             131
                                                                                                                                                                                                                                                                                                                                                                                                                                                      702
                                                                    FEATURES
                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                        BASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                  QΥ
                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                         Qγ
                                                                                                                                                                                                                                                                                                                                                                                           Вb
                                                                                                                                                                                                                                                                                                                                                                                                                òλ
                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                     QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΩŸ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BQ706140 958 bp mRNA linear EST 16-JUL-2002 AGENCOURT_8352177 NIH_MGC_113 Homo sapiens cDNA clone IMAGE:6277512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryogica, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. I (bases 1 to 958)
11 'HOMGC http://mgc.nci.nih.gov/. National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                     TGGACTCCGACGCTCCTTCTTCCTCTACAGCACGTCGACGAGACAAGAGCAGGTGGC 1243
                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACACCACTACACGC 1303
                                                                                                                                                                                                                                          1003
                                                                                                                                                                                                                                                                                1004 AAGCCAAAAGGCCAGCCCCGAGAACCACAGGTGTACACCTGCCCCCATCCCGGGATGAGC 1063
                                                                                                                                                                                                                                                                                                                        TGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTATCCCAGCGACATCG 1123
                                                                                                                                                                                                                                                                                                                                                               CCGTGGAGTGGGAGAGAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGC 1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                              848
                   188
                                                                                                                                                                                                                                                             548
 643
                                                                                                                    823
                                                                                                                                                                                                                                                                                                    608
                                                                                                                                                                                                                                                                                                                                            668
                                                                                                                                                                                                                                                                                                                                                                                 728
                                                                                                                                                                                                                                                                                                                                                                                                                         788
                                                                                                                  CCGTGGAGTGGGAAGCAATGGGCAGCCGGAACAACTACAAGACCACGCCTCCCGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAAGTGGAGGCCCA
                                       AATCTTGTGACAAAACTCACACAGGCCCACCGTGCCCAGCACCTGAACTCGCGGGGGCAC
                                                 CGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCCCTG
                                                                                                                                                           ACGTGGACGCCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACA
                                                                                                                                                                                                   GCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGG
                                                                                                                                                                                                                                         AGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCATCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDNA Library Preparation: Rubin Laboratory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tissue Procurement: Dr. Mark Watson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5', mRNA sequence.
BQ706140
BQ706140.1 GI:21845039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapien's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                    549
                                                                                                                                                                                                                                                                                                                        1064
                                                                                                                                                                                                                                                                                                                                                             1124
                                                                                                                                                                                                                                                                                                                                                                                                     1184
                                                                                                                                                                                                                                                                                                                                                                                                                                            1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
 584
                   129
                                       644
                                                         189
                                                                                                249
                                                                                                                                      309
                                                                                                                                                          824
                                                                                                                                                                              369
                                                                                                                                                                                                  884
                                                                                                                                                                                                                     429
                                                                                                                                                                                                                                         944
                                                                                                                                                                                                                                                             489
                                                                                                                                                                                                                                                                                                                                          609
                                                                                                                                                                                                                                                                                                                                                                                 699
                                                                                                                                                                                                                                                                                                                                                                                                                        729
                                                                                                                                                                                                                                                                                                                                                                                                                                                              789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                             704
                                                                                                                   764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 3
BQ706140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                             g
                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QQ
                                                                                             QQ
                                                                                                                                   q
                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                QQ
                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                         δy
                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
à
                 g
                                                     QQ
                                                                        ŏ
                                                                                                                  ζ
                                                                                                                                                         Q
                                                                                                                                                                                                 à
                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                       ò
                                     δ
```

```
/clone="Indeg:6277512"
/clone="Indeg:6277512"
/clone="Indeg:6277512"
/clone="Indeg:6277512"
/clone="Indeg:6277512"
/clone="Indeg:627512"
/clone="Organ: spleen; Vector: pOTB7; Site_1: XhoI; Site_2: note="Organ: spleen; Vector: pOTB7; Site_1: XhoI; Site_2: ECORI; cDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: this is a NIH MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCATCTC 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATGA 1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             881
                                                         þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGGAACTCAGGCGCCCTGACCAGCGCGTGCACACCTTCCCGGCTGTCCTACAGTCCTC 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGAC 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        70
                                                         can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAAAGCCAAAGGGCAGCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGGGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGGCGGGAGGAGCAGTACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCGTCAGTCTTCCTCTTCCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11 GTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTACATCTGCAACGTGAATCACAAGCCCAGCAACACCCAAGGTGGACAAGAAGTGGAGCC
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLN DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information found through the I.M.A.G.E. Consortium/LLNL at: http://image.lln.gov
Plate: LLCMA464 row: a column: 01
High quality sequence stop: 705.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 14; Length 958;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 847.2; DB 14 Pred. No. 3.1e-194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   150 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                              /organism="Homo sapiens"/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2<u>5</u>6 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 63.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                319 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                863; Conservative
```

647

707 241 767 301 827 361

1122

õ

671

g ò

1182

q

1242

ò g ò g

1302

```
GENCOURT_8352194 NIH_MGC_113 Homo sapiens cDNA clone IMAGE:6277561
5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 988)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1068 CAAGAACCAGGTCAGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATGGCCGT 1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGA 1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGCAGAA 1307
62 CTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACAT 121
                                                                                                                                                                                                                                                                                                                                                                                                                      162 GGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGAGGAGCAGTACAACAACAGCAC 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTACCGTGTGGTCACGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTA 947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      662 GGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGA 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        722 CTCCGACGGCTCCTTCTTCTTTACAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTA 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NHF-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                      182 TTGTGACAAAACTCACACATGCCCACCGTGCCCACCTGAACTCCTGGGGGGACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    708 AGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCCCTGAGGT
                                                                                                                                                                                                                                                      CACATGCGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTACGT
                                                                                                                                                                                                                                                                                                                                        GGACGCCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGGAGTACAACAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAACCATCTCCAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    482 CAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCATCTCCAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATGAGCTGAC
                                                                                                                                              648 TTGTGACAAAACTCACACGTGCCCGTGCCCAGCACCTGAACTCGCGGGGGGCACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCCGACGGCTCCTTCTTCCTCTACAGCAGCTCACCGTGGACAAGAGCAGGTGGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1308 GAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAGCCTCTCTCTGTCTCCGGGTAAATGA 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BQ708857.1 GI:21847756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                 828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
                                                                                                                                                                                                                                                                          242
                                                                                                                                                                                                                                                                                                              768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 5
BQ708857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                       a
                                                                                                   qq
                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                       Сp
                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dp
                                                              à
                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                              Qγ
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1...367
/Corganism="Homo sapiens"
/db_xref="taxon:9606"
/clone="InhaGE:4852076"
/clone="InhaGE:4852076"
/clone="InhaGE:4852076"
/clone="InhaGE:487076"
/clone="InhaGE:487076"
/clone="InhaGE:487076"
/close="Pinhage resistant)"
/lab.host="DH10B (phage-resistant)"
/note="Organ: B-cells; Vector: poTB7; Site_1: xhoI;
Site_2: EccH1; cDNA made by oligo-dT priming.
Directionally cloned into EcoRI/xhoI sites using the following 5' adaptor: size 18kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH-MGC Library."
25 a 309 c 244 g 148 t
                                                                                                                                                                                                                                                                                                                                                                                            BG755166 926 bp mRNA linear EST 15-MAY-2001 602711488F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4852076 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Euteleostomi;
                                                                             GCTGGACTCCGACGCTCCTTCCTTCCTACAGCACCTCACCGTGGACAAGAGCAGGTG 1241
                                                                                                                                                           790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 (bases 1 to 926)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  468 CTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACT 527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACAT 587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-rémail.nih.gov

CDNA Library Preparation: Ling Hong/Rubin Laboratory

CDNA Library Preparation: Ling Hong/Rubin Laboratory

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                   CGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGT
                     Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 12; Length 926;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 839.2; DB 12
Pred. No. 2.7e-192;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                             http://image.llnl.gov
Plate: LLCM1695 row: o column: 21
High quality sequence stop: 888.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BG755166.1 GI:14065819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  62.9%;
97.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 97.9
                                                                                                                                                                                                                                                                                                                                                                                                                                   mRNA sequence.
BG755166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Sim
Matches 850;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EST
```

source

FEATURES

Query Match

~ 528

q

ô

ò

BASE COUNT

ORIGIN

1007

887

DEFINITION

RESULT 4 BG755166 LOCUS

ACCESSION VERSION KEYWORDS SOURCE

ORGANISM

AUTHORS TITLE JOURNAL COMMENT

REFERENCE

1067

601

661

```
/clone=lib="NIMAE:02/101"
/lab_host="bH10B (phage-resistant)"
/lab_host="DH10B (phage-resistant)"
/lab_host="DH10B (phage-resistant)"
/note="Organ: spleen; Vector: pOTBT; Site_1: XhoI; Site_2: Corgan: spleen; Vector: pOTBT; Site_1: XhoI; Site_2: Corgan: spleen; Vector: pOTBT; Site_1: XhoI; Site_2: Corgan: spleen; Vector policy of the following 5' adaptor: dinto EcoRI/XhoI sites using the following 5' adaptor: laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: this is a 338 c 258 g 162 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4;
                                                                                                                                                          þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCCCTGGCACCTCCTCCAAGAGCACTCTGGGGGCACAGCGGCCCTGGGCTGCCTGG 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCGTGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGG 547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 308 ACTGGGGCCAGGGAACACTAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCCATCGGTCT 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               76 recectificate recordence and a second recorded confidence of the recorded confidence of the recorded recorde
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCC 907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        908 TCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACA 967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAAGGACTACTTCCCCGGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCG 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAGCAACACCAAGGTGGACAAGAAGTGGAGCCCAAATCTTGTGACAAAACTCACACAT 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCCACCGIGCCCAGCACCTGAACTCGCGGGGGCACCGTCAGTCTTCCTCTTCCCCCCAA 727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AACCCAAGGACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACG 787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16 ACTGGGGCCAGGGAACGCTGGTCACCTCCTCGGCCTCCACCACCAGCGCCCATCGGTCT 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
Tissue Procurement: Dr. Mark Watson CDNA Library Preparation: Rubin Laboratory cDNA Library Preparation: Rubin Laboratory cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at: http://image.lln.gov column: 02 http://image.lln.gov column: 02 High quality sequence stop: 716.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 62.6%; Score 835.4; DB 14; Length 988; 95.6%; Pred. No. 2.3e-191;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="IMAGE:6277561"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   903; Conservative
                                                                                                                                                                                                                                                                                                                                                                1. .988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local
Matches 9(
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         556
                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             òχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
/organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5450611"
/clone="IMAGE:5450611"
/clone="IMAGE:5450611"
/clone="IMAGE:5450611"
/clone="IMAGE:5450611"
/clone="IMAGE:5450611"
/clone="IMAGE:5450611"
/clone="IMAGE">/clone="IMAGE">/clone="IMAGE">/clone="IMAGE">/clone="IMAGE">/clone="IMAGE">/clone="IMAGE">/clone="IMAGE">/clone="IMAGE">/clone="IMAGE"/</clone="IMAGE"/>/clone="IMAGE"/>/clone="IMAGE"/</clone="IMAGE"/>/clone="IMAGE"/</clone="IMAGE"/>/clone="IMAGE"/</clone="IMAGE"/>/clone="IMAGE"/</clone="IMAGE"/>/clone="IMAGE"/</clone="IMAGE"/>/clone="IMAGE"/</clone="IMAGE"/>/clone="IMAGE"/</clone="IMAGE"/>/clone="IMAGE"/</clone="IMAGE"/>/clone="IMAGE"/</clone="IMAGE"/>/clone="IMAGE"/</clone="IMAGE"/</clone="IMAGE"/>/clone="IMAGE"/</clone="IMAGE"/</clone="IMAGE"/</clone="IMAGE"/</color="IMAGE"/>/clone="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color="IMAGE"/</color=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BM007892 901 bp mRNA linear EST 30-OCT-2001 603617577F1 NIH_MGC_113 Homo sapiens CDNA clone IMAGE:5450611 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 901)
MNH-MGC http://mgc.nci.nih.gov/.
National institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Mark Watson
CDNA Library Preparation: Ling Hong/Rubin Laboratory
DNA Sequencing by: The T.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://mage.lll.gov
http://mage.lll.gov
lightpublic sequence stop: 834.
Location/Qualifiers
                                                                                                                                                                                                                                1028 CACAGGTGTACACCCTGCCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTCAGCCTGA 1087
                                                                                                968 AAGCCCTCCCAGCCCCCATCGAGAAAACCATCTCCAAAGGCCAAGGGCAGCCCGAGAAC 1027
                                                                                                                                       Gaps
                            TCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACA
5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 901;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCCTCTACAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCA 1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 831.2; DB 13;
Pred. No. 2.3e-190;
0; Mismatches 18; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BM007892.1 GI:16522233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               62.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 62.3
Best Local Similarity 97.7
Matches 864; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mRNA sequence.
BM007892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BM007892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SASE COUNT
                            919
                                                                                                                                                                                                                                                                                                                                                                    1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 6
BM007892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q7 d9
                                                                                         δά
                                                                                                                                                                                                                            Qγ
                                                                                                                                                                                                                                                                                  QQ
                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Óγ
```

```
Query Match
Best Local S
                                                                                                                                                                                                                                                                 BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                               369 (
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                    188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         308
                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                68
                                                                                                                                                                                                                                                                                                                                                                                                  429
                                                                                                                                                                                                                                                                                                                                                                                                                                   489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           368
                                                                                                                                   FEATURES
                                   COMMENT
                                                                                                                                                                                                                                                                                                                               δλ
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                              Ω
                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                 Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                ΩD
                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ΩD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ar EST 16-JUL-2002 clone IMAGE:6279643
                                                                                                                                                                                                                                                                                                                                                                                         1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTGGTCAAAGGCTTCTATCCCAGCGACATCG-CCGTGGAGTGGGAGAGCAATGGGCAGC 1150
                                                                                                                                                                                                                                                                                                                                                                                                                           GGTGTACACCCTGCCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTCAGCCTGACCTG 1091
                                                                                                                                                                                                                                                                                                                                      618
                                                                                                                                                                                                                                                                                                                                                                        678
                                   431
                                                    138
                                                                      491
                                                                                                        551
                                                                                                                        258
                                                                                                                                          611
                                                                                                                                                                            671
                                                                                                                                                                                             378
                                                                                                                                                                                                              731
                                                                                                                                                                                                                               438
                                                                                                                                                                                                                                                 791
                                                                                                                                                                                                                                                                  498
                                                                                                                                                                                                                                                                                   851
                                                                                                                                                                                                                                                                                                   558
                                                                                                                                                                                                                                                                                                                     911
                                                                                                                                                                                                                                                                                                                                                      971
                                                                                                                                                                                                                                                                                                                                                                                                          737
                                                                                                                                                                                                                                                                                                                                                                                                                                           797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              857
                 78
                                                                                                                                                                                                                                                                                                                                                                                                  CGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAG
                                                                                                                                                   CAAGGACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAG
                                                                                                                                                                                                                                                           CCACGAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGCGTGGAGGTGCATAATGC
                                                                                                                                                                                                                                                                                             CGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGC
                                                                                                                                                                                                                                                                                                                                                                                        CCTCCCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAAGGCCAGCCCCGAGAACCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGCCAGGGAACACTAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCC
                                    CCTGGCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAA
                                                                                                         GCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGAC
                                                                                                                                                                             CAACACCAAGGTGGACAAGAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCC
                                                                                                                                                                                                               ACCGTGCCCAGCACCTGAACTCGCGGGGGCACCGTCAGTCTTCCTCTTCCCCCCCAAAACC
                                                                                                                                                                                                                                                                                                                      CAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCAC
                                                                                                                                                                                                                                                                                                                                                        CGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGC
                                                                      GGACTACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGAC 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA
sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGGAGAACACTAACAAGACCACGGCTCCCGTGCTGGACTCCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           918 bp
AGENCOURT_8353641 NIH_MGC_113 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                           1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1151
                  19
                                                                                       139
                                                                                                                        661
                                                                                                                                                                                             319
                                                                                                                                                                                                              672
                                                                                                                                                                                                                                379
                                                                                                                                                                                                                                                 732
                                                                                                                                                                                                                                                                  439
                                                                                                                                                                                                                                                                                    792
                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                     852
                                                                                                                                                                                                                                                                                                                                      559
                                                                                                                                                                                                                                                                                                                                                                        619
                                                                                                                                                                                                                                                                                                                                                                                         972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               798
                                    372
                                                    19
                                                                      132
                                                                                                        492
                                                                                                                                          552
                                                                                                                                                            259
                                                                                                                                                                             612
                                                                                                                                                                                                                                                                                                                                                        912
                                                                                                                                                                                                                                                                                                                                                                                                          619
                                                                                                                                                                                                                                                                                                                                                                                                                                             738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 7
BQ708022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCUS
                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
  ð
                 g
                                    ò
                                                    g
                                                                      ò
                                                                                     g
                                                                                                        ò
                                                                                                                        9
                                                                                                                                          ò
                                                                                                                                                          a
                                                                                                                                                                             ò
                                                                                                                                                                                          음
                                                                                                                                                                                                              ô
                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                        ò
```

Homo sapiens Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

5', mRNA sequence. BQ708022 BQ708022.1 GI:21846921

ACCESSION

VERSION

human.

ORGANISM

```
1. 918
/organism="Homo sapiens"
/dD_xref="taxon:9606"
/clone="InhaGE:6279643"
/clone=lib="NIH_AGC_113"
/lab_host="MIH_0B (phage-resistant)"
/lab_host="MIH_0B (phage-resistant)"
/lab_host="MIH_0B (phage-resistant)"
/note="Organ: spleen; Vector: pOTB7; Site_1: XhoI; Site_2:
CCORI; CDNA made by oligo-dT priming. Directionally cloned
into EcoRI.AhoI sites using the following 5' adaptor:
GGCACGAG(G). Library constructed by Ling Hong in the
laboratory of Gerald M. Rubin (University of California,
Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and
Superscript II RT (Life Technologies). Note: this is a
NIH_MGC Library."

2 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                 þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                309 CTGGGGCCAGGGAACACTAGTCACCGTCTCAGCCTCCACCAAGGGCCCATCGGTCTT 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCCCTGGCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGGGGCCCTGGGCTGCCTGGT 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: cgapbs.remail.nlh.gov
Tissue Procurement: Dr. Mark Watson
cDNA Library Preparation: Rubin Laboratory
cDNA Library Preparation: Rubin Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov i column: 20
Plate: LLCM2469 row: i column: 20
High quality sequence stop: 667.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAAGGACTACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGTGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCÁGCGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGTGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         248 GACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGCAACACCAAGGTGGACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCAACACCAAGGTGGACAAGAAAGTTGAGCCCAAATCTTGTGACAAAACTCACACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCCAAGGACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 14; Length 918;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 826.4; DB 14
Pred. No. 3.3e-189;
; Mismatches 33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61.98;
96.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity 96.1
nes 867; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

others

Ļ 165

ò g g ò g ò g Ω g ò g δ

ŏ

```
σ
    276
                                                                          ..
                                             61.5%;
98.7%;
    O
                                                                          Conservative
    350
                                                           1 Similarity
859; Conser
    ø
    237
                                              Query Match
                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
 BASE COUNT
ORIGIN
                                                            Best Loca
Matches
                                                                                                                                                               447
                                                                                                                                                                                             64
                                                                                                                                                                                                                         507
                                                                                                                                                                                                                                                     124
                                                                                                                                                                                                                                                                                  267
                                                                                                                                                                                                                                                                                                              184
                                                                                                                                                                                                                                                                                                                                             627
                                                                                                                                                                                                                                                                                                                                                                         244
                                                                                                                                                                                                                                                                                                                                                                                                       687
                                                                                                                                                                                                                                                                                                                                                                                                                                 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 9
BQ711255
                                                                                                                               q
                                                                                                                                                                                           g
                                                                                                                                                                                                                                                  Op
                                                                                                                                                                                                                                                                                 δy
                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                          QY.
                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                               δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΩŸ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                               δ
                                                                                                                                                                                                                      Ωÿ
                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /issue_type="lymphona", cell line"
/lab_host="DH10B (phage-resistant)"
/lab_host="DH10B (phage-resistant)"
/note="Organ: lymph; vector: poyPB7; Site_1: XhoI; Site_2:
ECORI; cDNA made by oligo-dT priming. Directionally cloned
into ECORI/XhoI sites using the following 5' adaptor:
GGCACGAG(G). Size-selected >SOOD for average insert size
1.8kb. Library constructed by Ling Hong in the laboratory
of Gerald M. Rubin (University of California, Berkeley)
using ZAP-cDNA synthesis Kit (Stratagene) and Superscript
II RT (Life Technologies). Note: this is a NIH_MGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             BQ063185
AGENCOURT_6876667 NIH_MGC_99 Homo sapiens cDNA clone IMAGE:5924769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.nih.gov
Tissue Procurement: Lou Staudt
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be found through the I.M.G.E. Consortium/LLNL at:
http://mage.lln.gov
Plate: LLCM2095 row: g column: 10
High quality sequence stop: 723.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1029)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)
                                                                                                                                                                            1029 ACAGGTGTACACCCTGCCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTCAGCCTGAC 1088
                                                                                                                                                                                                                                                                                               1148 AG-CCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGCTCCTTCTTC 1206
                                                                                                                 969 AGCCCTCCCAGCCCCCATCGAGAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACC 1028
                                                                                                                                  1089 CTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGT-GGAGTGGGAAGCAATGGGC
849 TGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCT
               CACCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAA
                                                                                                                                                                                                                                                      /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone="IMAGE:5924769"
/clone_lib="NIH_MGC_99"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BQ063185.1 GI:19890681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5', mRNA sequence.
BQ063185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                        CT 1208
                                                                                                                                                                                                                                                                                                                                                                                      CI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                         606
                                                                                                                                                                                                                                                                                                                                                                                      806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                        1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 8
BQ063185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
```

LOCUS

```
3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BQ711255 887 bp mRNA linear EST 16-JUL-2002 AGENCOURT_8443471 NIH_MGC_113 Homo sapiens cDNA clone IMAGE:62816595', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAA 1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACCACGCCT-CCCGTGCTGGACTCCGACGCTCCTTCTTCCTCTACA-GCAAGCTCACC 1224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                603
                                                                                                                                                                                                                                                                                                                                                                                                 746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                566
                                                                                                                                                                                                                   626
                                                                                                                                                                                                                                                                                                 243
                                                                                                                                                                                                                                                                                                                                 989
                                                                                                                                                                                                                                                                                                                                                                303
                                                                                                                                                                                                                                                                                                                                                                                                                                  363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                543
                                                                                                                                                  Gaps
                                                                                                63
                                                                                                                                                                                                                                                                                                                                                                                                               4 CCAGAGCACCTCTGGGGGCACAGCGCCCTGGGCTGCTGGTCAAGGACTACCTCCCCGA
                                                                                                                                                                                                  TGTCCTACAGTCCTCAGGACTCTACTCCTCAGCAGCGTGGTGACCGTGCCTCCAGCAG
                                                                                                                                                                                                                                                                  CTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCCAGCAACACCCAAGGTGGA
                                                                                                                                                                                                                                                                                   CAAGAAAGTGGAGCCCAAAATCTTGTGACAAAACTCACACATGCCCAGCGGCCCAGCACC
                                                                                                                                                                                                                                                                                                                                                 GATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGTGGTGAGGCCACGAAGACCCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGGAGCAGTACAACACCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               387 CAAGAGCACCICIGGGGGCACAGCGGCCCTGGGCTGGTCAAGGACTACTTCCCCGA
                                                                                                                                                                                                                                                                                                                                                                                                 TGAACTCGCGGGGGCACCGTCAGTCTTCCTCTTCCCCCCAAAACCCCAAGGACACCCTCAT
                                                                                                                                  ACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGC
   1029;
                                3;
 Length
                                  Indels
ore 821.2; DB 14;
ed. No. 6.3e-188;
Mismatches 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGGACAAGAGCA-GGTGGCAGCAGGGGAA 1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score Pred. 1
```

œ

```
BM914540.1 GI:19364919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    uman.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                            1105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
TITLE
                                                                                   925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
BM914540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
COMMENT
                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
                              a
                                                                                   δλ
                                                                                                                                   q
                                                                                                                                                                                        ò
                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/db xref="taxon:9606"
/clone="inAGE:6281659"
/clone=lib="inHiAGE:6281659"
/clone=lib="NHH_MGE_113"
/lab_host="DH10B (phage-resistant)"
/lab_host="DH1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3,
                                                                                                                                   Craniata; Vertebrata; Euteleostomi;
Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                           cDNA Library Preparation: Rubin Laboratory cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Biosclence Corporation Clone distribution inGC clone distribution information can be
                                                                                                                                                                                  1 (bases 1 to 887)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Enall: cgapbs r@mail.nih.gov
Tissue procurement: Dr. Mark Watson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          445 GAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GAACCGGTGACGGTGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 AGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGGCCCAGCAACACACAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181 GACAAGAAGTTGAGCCCAAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            805 GAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361 GAGGTCAAGTTCAACTGGTACGTGGACGGCGTGCAGGAGTGCATAATGCCAAGACAAAAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               865 CGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCCAAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               625 GACAAGAAAGIGGAGCCCAAAICTIGIGACAAAACICACACAIGCCCACCGIGCCCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      685 CCTGAACTCGCGGGGGCACCGTCAGTCTTCCTCTCCCCCCAAAACCCAAGGACACCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Э;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 61.4%; Score 819.6; DB 14; Length 887; Best Local Similarity 97.4%; Pred. No. 1.4e-187; Matches 864; Conservative 0; Mismatches 20; Indels 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCM2474 row: m column: 20
High quality sequence stop: 681.
Location/Qualifiers
1..887
                                                                                                                                Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
BQ711255
BQ711255.1 GI:21850154
                                                                                                            Homo sapiens
                                                                                   human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             745
                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
ACCESSION
                                                     KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                         VERSION
                                                                                                                                                                                                                                                                                               COMMENT
                                                                              SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
BM914540
995 bp mRNA linear EST 12-MAR-2002
AGENCOURT_6615506 NIH_MGC_113 Homo sapiens cDNA clope IMAGE:5480223
57, mRNA sequence.
BM914540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                              1104
                                                                                                                                                                                                                                                                                                                                                                    1164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov
Tissue Procurement: Dr. Mark Watson
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
Phttp://mage.llnl.gov
Plate: LLCM2002 row: 1 column: 16
High quality sequence stop: 718.
                                                                                                                                                        985 ATCGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCGAGAACCACAGGTGTACACCCTG 1044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1165 AAGA-CCACGCCTCCCGTGCTGGACTCCGACGCTCCTTCTTCCTCTACAGCAAGCTCAC 1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGT-GGACAAGAGCAGGTGGCAGC-AGGGGAACGTCTTCTCATGCTCCGTGATGCATGAG 1281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGGGAGGAGCAGTACAACACCACGTACCGTGTCAGCGTCCTCACCGTCCTGCACCAG 480
                                                                                                                                                                                                                                                                                                                                                                                                                  661 TICTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTAC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 (bases 1 to 995)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                             TTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTAC
                                                     GACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1282 GCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCCTGTCTCCGGG 1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTCTGCACAACCACTACCCGCAGAAGAAGCTTCTCCCTGGTCTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone_lib="NIH_MGC_113"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /db_xref="taxon:9606"
/clone="IMAGE:5480223"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
```

σ

Sat

```
5', mRNA sequence.
BQ711291
BQ711291.1 GI:21850190
EST.
                                                     Homo sapiens
                                             human.
                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                        Best Loca
Matches
                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                      COUNT
                                                                                      AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                         VERSION
KEYWORDS
SOURCE
                 ACCESSION
                                                                               REFERENCE
                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                      BASE CO
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          öλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QΫ́
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δy
                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BQ711291 881 bp mRNA linear EST 16-JUL-2002 AGENCOURT_8347186 NIH_MGC_113 Homo sapiens CDNA clone IMAGE:6279096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAGCCCTCCCAGCCCCCATCGAGAAACCATCTCCAAAGCCCAAAGGGCAGCCCCGAGAA 1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1027 CCACAGGTGTACACCCTGCCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTCAGCCTG 1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1087 ACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGG-AGAGCAATGG 1145
                                                                                                                                                                                                                                                                                                                  435
                                                                                                                                                                                                                                                                                                                                    786
                                                                                                                                                                                                                                                                                                                                                      495
                                                                                                                                                                                                                                                                                                                                                                                                                                              996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                675
                                                                                                                                                                                        546
                                                                                                                                                                                                                          909
                                                                                                                                                                                                                                                              999
                                                                                                                                                                                                                                                                               375
                                                                                                                                                                                                                                                                                                 726
                                                                                                                                                                                                                                                                                                                                                                                                                            615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             855
                                                                             GACTGGGGCCAGGGAACACTAGTCACCGTCTCAGCCTCCACCAAGGGCCCATCGGTC 366
                                                                                                                TTCCCCCTGGCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTG 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 676 AAAGCCCTCCCAGCCCCCATCGAGAAACCATCTCCCAAAGCCCAAAGGCCAGCCCCGGAGA 735
                                                            Gaps
                                                                                               75
                                                                                      AAACCCAAGGACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGAC
                                                                                                                                                                                                                                                                                                                                            GTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGC
                                                                                                                                                                                      GGCGTGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTG
                                                                                                                                                                                                                          GTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAAAGGTGAATCACAAG
                                                                                                                                                                                                                                                             CCCAGCAACACCCAAGGTGGACAAGAAAGTGGAGCCCCAAATCTTGTGACAAAACTCACACA
                                                                                                                                                                                                                                                                                                 GTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGCGTGGAGGTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                          AATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTC
                                                            5;
                                         Length 995;
                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCAGCCGGAGAACAACTACAAGA-CCACGCCTCCCGTGCTGG 1186
                                          DB 14;
                                                            24;
                                         Score 819.6; DB 14
Pred. No. 1.5e-187;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAGCCGGAAAAAACTACAAGACCCCCGCCTCCCGTGCTTG
                 u
                                                            0; Mismatches
                 165
                 б
      Library."
c 259
                                         61.48;
97.18;
                                                           856; Conservative
                330
                                                   Similarity
                 α
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BQ711291
                                           Query Match
                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCUS
                 BASE COUNT
                                                                             307
                                                           Matches
                                                                                                               367
                                                                                                                                 9/
                                                                                                                                                   427
                                                                                                                                                                     136
                                                                                                                                                                                      487
                                                                                                                                                                                                       196
                                                                                                                                                                                                                         547
                                                                                                                                                                                                                                          256
                                                                                                                                                                                                                                                            607
                                                                                                                                                                                                                                                                              316
                                                                                                                                                                                                                                                                                                                                   727
                                                                                                                                                                                                                                                                                                                                                    436
                                                                                                                                                                                                                                                                                                                                                                                       496
                                                                                                                                                                                                                                                                                                                                                                                                         847
                                                                                                                                                                                                                                                                                                                                                                                                                           556
                                                                                                                                                                                                                                                                                                                                                                                                                                             907
                                                                                                                                                                                                                                                                                                                                                                                                                                                              919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 11
BQ711291
                                                                                                                                                                                                                                                                                                667
                                                                                                                                                                                                                                                                                                                                                                      787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1146
                       ORIGIN
                                                                                                                                                                   q
                                                                                                                                                                                                      q
                                                                                                                                                                                                                                          음
                                                                                                                                                                                                                                                                           용
                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                             g
                                                                                                                                                                                                                                                            οy
                                                                                                                                                                                                                                                                                                οy
                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                  ď
                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                               Q
                                                                                                                             g
                                                                                                                                               οy
                                                                                                                                                                                      à
                                                                                                                                                                                                                        ò
```

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eutheria; Ditheria; Primates; Catarrhini; Hominidae; Homo.

El (bases I to 881)

El (bases I to 881)

National Institutes of Health, Mammalian Gene Collection (MGC)

National Institutes of Health, Mammalian Gene Collection (MGC)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-rémail.nih.gov

Tissue Procurement: Dr. Mark Watson

CDNA Library Preparation: Rubin Laboratory

CDNA Library Preparation: Rubin Laboratory

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC Clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Righ quality sequence stop: 721.

High quality sequence stop: 721.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone_lib="NIH_MGC_113"
/lab_host="DH10B (phage-resistant)"
/lab_host="DH10B (phage-resistant)"
/note="Organ: spleen; Vector: pOTB7; Site_1: XhoI; Site_2:
ECORI: CDNA made by oligo-dr priming. Directionally cloned
into ECORIXXNo sites using the following 5 adaptor:
GGCAGGAG(G). Library constructed by Ling Hong in the
laboratory of Gerald M. Rubin (University of California,
Berkeley) using ZAP-CDNA synthesis kit (Stratagene) and
Superscript II R (Life Technologies). Note: this is a
NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 CCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCCAAGGTGGACAAGTT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 TGAGCCCAAATCTTGTGACAAAAACTCACACATGCCCACCGTGCCCAGCACCTGAACTCCT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         516 GTCCTCAGGACTCTACTCCCTCAGCAGCGTGACCGTGCCCTCCAGCAGCTTGGGCAC 575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGAA 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAA 935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           636 GGAGCCCAAATCTTGTGACAAAACTCACACGAGCCCACCGTGCCCAGCACCTGAACTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCCAAGGTGGACAAGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       696 GGGGGCACCGTCAGTCTTCCTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCCACGAAGACCCTGAGGTCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         881;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 14; Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 805.6; DB 1-
Pred. No. 3.5e-184
0; Mismatches 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              139 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone="IMAGE:6279096"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           237 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  / Match 60.3%;
Local Similarity 99.5%;
nes 808; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. .881
```

a

ò

qq ò g ò g ò g ò g ò a

ò

us-09-674-716b-18.rst

10

ä

```
BU/11/27 4895330 NIH_MGC_113 Homo sapiens cDNA clone IMAGE:63019615', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGACATCGCCGT-GGAGTGGGAGAGCAATGGGCAGCGGGGAGAACAACTACAAGACCACG 1173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACGGTGGACAAG 1233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCATCTCCAAAGCCAAAGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCC 1054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1055 GGGATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTATCCCA 1114
                                                                                                                                                                                                                          11 CGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGCGTGCACACCTTCCCGGCTGTCCTAC 130
                                                                                                                                                                                                                                                                                                                    131 AGTCCTCAGGACTCTACTCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCA 190
                                                                                                                                                                                                                                                                                                                                                                           310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          431 TCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGC 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTCCCGTGCTGAACTCCGACGGCTCCTTCTTCCTACAGCAAAGCTCACGGGGGACA 850
                                                                                              Gaps
                                                                                                                                 395 CCTCTGGGGGCCACAGCGGCCCTGGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGA 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGGGGGCACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCC 754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAA 994
                                                                                                                                                    11 CCTCTGGGGGCACAGGGCCCTGGGCTGCTGGTCAAGGACTTCCCCGAACCGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                    311 TGGGGGGACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCTCATGATCTCCCC
                                                                                                                                                                                                                                                                                                                                                         CCCAGACCTACATCTGCAACGTGAATCACAAGCCCCAGCAACACAAGGTGGACAAGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                 635 TGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCACCTGAACTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCAACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTACAACAGCACGTACCGTGTGGTCGTCCTCCTCACCGTCCTGCACCAGGACTGGCTGA
                                                                                                                                                                                                          CGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTAC
                                                                                                                                                                                                                                                                                515 AGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               731 GCGACATCCCCNTGGGAGTGGGAAACCAATGGGCACCCGGAGAACAACTACAAGAACCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1;
                                                           Length 1031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGC 1283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  others
                                                                                              Indels
                                                       ; DB 14;
4.5e-182;
                                                                         Pred. No. 4.56
0; Mismatches
     162
                                                         Score 797;
Pred. No. 4
     б
   271
                                                       Match 59.7%;
Local Similarity 94.2%;
tes 838; Conservative
     O
     349
     ۵
   248
                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
BQ711727
LOCUS
DEFINITION
                                                                             Best Loca
Matches
   BASE COUNT
ORIGIN
                                                                                                                                                                                                          455
                                                                                                                                                                                                                                                                                                                                                       575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                851
                                                                                                                                 δλ
                                                                                                                                                                    g
                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                          δλ
                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      oγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ά
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1031 bp mRNA linear EST 02-APR-2002 AGENCOURT_6887080 NIH_MGC_99 Homo sapiens cDNA clone IMAGE:5929343 BQ064886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="Organ: lymph; Vector: pOTB7; Site_1: Xho1; Site_2: ECORR; CDNA made by oligo-dT priming. Directionally cloned into ECORL/Xho1 sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-CDNA synthesis kit (Stratagene) and Superscript IR R (Life Technologies). Note: this is a NIH_MGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                           1055
                                                                                                                                                1115
                                                                                                                                                                                                                          1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: agabbs-remail.nih.gov
Tissue Procurement: Low Staudt
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information cloud through the I.M.A.G.E. Consortium/LLNL at:
http://mage.llnl.gov
Plate: LLCM2107 row: e.column: 24
High quality sequence stop: 573.
                                                                                                                                                                                                                                                                                               TCCCGTGCTGGACTCCCGACGCCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGACAAGAG 1235
                                                                                                                                                                                                                                                                                                                                                                       CAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCA 1295
                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                          721 CAGGTGGCAGCAGCAGCAGCACCTCTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 1031)
NIH-MGC http://mgc.nci.nih.gov/
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                          TGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCCATCGAGAAAAC
                                                                                                                                                                                                                          CGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCC
                                                                                                                                                                                                                                           TGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAAGCCCTTCCCAGCCCCCATCGAGAAAC
                                                                       CATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCG
                                                                                                                                              /tissue_type="lymphoma, cell line"
/lab_host="DH10B (phage-resistant)"
                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5929343"
/clone_lib="NIH_MGC_99"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BQ064886.1 GI:19893932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Library.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
936
                                                                                                                                                                                                                        1116
                                                                                                                                                                                                                                                                                             1176
                                                                                                                                                                                                                                                                                                                                                                       1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                            481
                                                                                                                                                1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                       966
                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                1296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BQ064886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
```

11

1036

1096

```
Contact: Robert Strausberg, Ph.D.

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-rémail.nih.gov
Tissue Procurement: Dr. Mark Watson

CDNA Library Preparation: Rubin Laboratory

CDNA Library Preparation: Rubin Laboratory

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MCC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:

thtp://mage.llnl.gov

Plate: LLCM2382 row: k column: 20

High quality sequence stop: 619.

Location/Qualifiers

1. 940

/organism="Homo sapiens"
/clone=lib=ThMCBE.621495#

/clone=lib=ThMCBE.621495#
/clone=lib=ThMCBE.621495#
/clone=lib=ThMCBE.621495#
/clone=lib=ThMCBE.621495#
/clone=lib=ThMCBE.621495#
/clone=lib=ThMCBE.621495#
/clone=lib=ThMCBE.621495#
/clone=lib=ThMCBE.621495#
/clone=lib=ThMCBE.621495#
/clone=lib=ThMCBE.621495#
/clone=lib=ThMCBE.621495#
/clone=lib=ThMCBE.621495#
/clone=lib=ThMCBE.621495#
/clone=lib=ThMCBE.62149 constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: this is a NIH.MCC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BQ705928 940 bp mRNA linear EST 16-JUL-2002 AGENCOURT_7976186 NIH_MGC_113 Homo sapiens cDNA clone IMAGE:6214795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chordata; Craniata; Vertebrata; Euteleostomi;
Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                  ACAACTACAAGACCA-CGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGC 1215
                                                                                                                                                                                                                                                                                                                                                                                                                       AAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATG 1275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1276 CATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                           1097 TCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGA 1156
                                                                                                                                                                                                                                                                  610 TCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAATGGGCAGCCGGAGA 669
                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleoston Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. (bases 1 to 940)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)
490 CAGCCCCCATCGAGAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGT
                                                                    CAGCCCCCATCGAGAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            147 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NIH_MGC Library.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5', mRNA sequence.
BQ705928
BQ705928.1 GI:21844827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                       1037
                                                                                                                                                                                                                                                                                                                                  1157
                                                                                                                                                                                                                                                                                                                                                                                                                         1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                         430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
BQ705928
                                                                  211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                         Pp
                                                                                                                                                                                                                                                                                                                                                                                                                         δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                δ
                                                                                                           g
                                                                                                                                                                                         ρp
                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                  Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone_lib="NHWGC_lil"
/lab_host="DHIOB (phage-resistant)"
/lab_host="DHIOB (phage-resistant)"
/note="Corgan: spleen; Vector: porply: Site_1: XhoI; Site_2:
Foots="Corgan: spleen; Vector: porply: Directionally cloned
into EcoRI/XhoI sites using the following 5' adaptor:
GCACGAG(GG(5). Library constructed by Ling Hong in the
laboratory of Gerald M. Rubin (University of California,
Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and
NIH-MCC Library IR (Life Technologies). Note: this is a
30 G 245 g 152 t 2 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ς,
                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 936)
NIH-MGC http://mgc.nci.nih.gov/.
NIH-MGC http://mgc.nci.nih.gov/.
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           70 CCTCCAGCAGCTTGGGCACCCAGACCTGCAACGTGCAACGTGAATCACAAGCCCAGCAACA 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                250 ACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGTGGTGGCCACG 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                310 AAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGA 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         917 TGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCC 976
                                                                                                                                                                                                                                                                                                                                                                              þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               497 CCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGC 556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        69
                                                                                                                                                                                                                                                           Email: cgapbs-remail.nih.gov
Tissue Procurement: Dr. Mark Watson
Tissue Procurement: Dr. Mark Watson
CDNA Library Preparation: Rubin Laboratory
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
k column: 18
High quality sequence stop: 547.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10 CCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      190 GCCCAGCACCTGAACTCCTGGGGGACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGCCGTGGAGGTGCATAATGCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAAAGCCGCGGGGGGGGGGGGGTACAACACCGTACCGTGTGGTCAGCGTCCTCACCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 936;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 794.2; DB 14;
Pred. No. 2.1e-181;
0; Mismatches 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone="IMAGE:6301961"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      245 g
  BQ711727
BQ711727.1 GI:21850626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          59.5%;
98.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 824; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .936
                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                    human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BASE COUNT
                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         797
                                                                                                                                                                           AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             677
ACCESSION
                    VERSION
KEYWORDS
SOURCE
                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

рe

```
/organism="Homo sapiens"
/db.ref="taxon:9606"
/clone_lib="TMAGE:548018s"
/clone_lib="Nil_MGC_l13"
/clone_lib="Nil_MGC_l13"
/lab_host="DH10B (phage-resistant)"
/note="Organ: spleen; Vector: poTB7; Site_1: XhoI; Site_2: BCORI; CDNA made by oligo-dT priming. Directionally cloned into EcorI/AnoI sites using the following 5' adaptor: GGCACGAG(G). Library constructed by Ling Heng in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: this is a NIE_MGC Library."

85 a 332 c 256 g 155 t 2 others
    1 (bases 1 to 980)
NIH WGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 CCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAACTTCCCCGAACCGGTGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTCCTCAGGACTCTACTCCTCAGCAGCGTGGTGACGTGCCCTCCAGCAGCTTGGGCA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 CCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACACCAAGGTGGAAAAAA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           335 TCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTCCAAGAGCA 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   395 CCTCTGGGGGCACAGCGGCCCTGGGCTGCTGGTCAAGGACTACTTCCCCGAACCGGTGA 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGGGGGCACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCC 754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGACCCCTG-AGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAG 813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAG 873
                                                           Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rémail.nih.gov
Tissue Procurement: Dr. Mark Watson
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Blosslence Corporation
Clone distribution: MGC clone distribution information and through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCMX002 row: k column: 02
High quality sequence stop: 689.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 TCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTAAGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACGTGCCCTCCAGCACTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCCAAGGTGGACAAGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGAGCCCAAATCTTGTGACAAACTCACACATGCCCACCGTGCCCAGCACCTGAACTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 980;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                59.0%; Score 788; DB 14; 97.1%; Pred. No. 6.7e-180;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                      235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            824;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loca
Matches
    REFERENCE
AUTHORS
                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                  ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                980 bp mRNA linear EST 12-MAR-2002
-113 Homo sapiens cDNA clone IMAGE:5480185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCTGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTATCCCAGCGACA 1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCTGGACTCCGACGCTCCTTCTTCCTCTACAGCAGCTCACCGTGGACAAGAGCAGGT 1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACA 1300
                                                                                                                      640
                                                                                                                                                                                700
                                                                                                                                                                                                                                         160
                                                                                                                                                                                                                                                                                                                                                                                                                        940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                            580
                                                                                                                                    180
                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                   820
                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                             880
                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                   099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                        9
                                                                         CAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGA
                                                                                                                   CCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAGTGGAGC
                                                                                                                                                                                                                                                      GACCGTCAGTCTTCCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCC
                                                                                                                                                                                                                                                                                                CTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACT
                                                                                                                                                                                                                                                                                                                GGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                     ACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGGGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCACCTGAACTCGCGGGGG
                                                                                                                                                                                                                                      CACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCGCCGTGGAGTGGGAAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 14; Length 940;
                                Indels
 Score 792.8; DB 14
Pred. No. 4.5e-181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGC-AGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCAAAAAGAGCCTCTCCCTGTCTCCCGGTAAATGA 816
                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NIH_MGC_113
                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BM914504.1 GI:19364883
 59.48;
                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGENCOURT_6615280
5', mRNA sequence.
BM914504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BM914504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         human.
                               808;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EST
Query Match
Best Local S
                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                            521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 15
BM914504
LOCUS
                                                                                                                    581
                                                                                                                                                                             541
                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1301
                                                                                                                                               61
                                                                                                                                                                                                         121
                                                                                                                                                                                                                                      701
                                                                                                                                                                                                                                                                                                761
                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                     881
                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                          821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                    g
                                                            õ
                                                                                     g
                                                                                                                    ò
                                                                                                                                               셤
                                                                                                                                                                           ò
                                                                                                                                                                                                       g
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
```

5

Gaps

.,

9

634

```
994 ACCATCTCCAAAGCCAAAGGGCAGCCCGAGAACCACAGGTGTACACCCTGCCCCATCC 1053
1171 ACGCCTCCC 1179
                                                                                          ||||| ||
|841 CCGCCCTCC 849
                                         qq
       Ωp
                                                  δλ
                 Q
                        Dp
                                  Qγ
                                                           qq
                                                                   Óγ
                                                                            qq
                                                                                     ò
```

Search completed: April 26, 2003, 07:27:01 Job time : 1780.31 secs

		s un	•
•			
·			
·	•		
			•

```
April 26, 2003, 04:50:01; search time 268.58 Seconds (without alignments) 11193.756 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |: /SIDS2/gcgdata/geneseqn/geneseqn-emb1/NA1980.DAT:*
| SIDS2/gcgdata/geneseqy/geneseqn-emb1/NA1981.DAT:*
| SIDS2/gcgdata/geneseqy-emb1/NA1981.DAT:*
| SIDS2/gcgdata/geneseqy-emb1/NA1982.DAT:*
| SIDS2/gcgdata/geneseqy-emb1/NA1982.DAT:*
| SIDS2/gcgdata/geneseqy-emb1/NA1982.DAT:*
| SIDS2/gcgdata/geneseqy-emb1/NA1982.DAT:*
| SIDS2/gcgdata/geneseqy-emb1/NA1986.DAT:*
| SIDS2/gcgdata/geneseqy-emb1/NA1986.DAT:*
| SIDS2/gcgdata/geneseqy-emb1/NA1986.DAT:*
| SIDS2/gcgdata/geneseqy-emb1/NA1980.DAT:*
| SIDS2/gcgdata/geneseqy-emb1/NA1980.DAT:*
| SIDS2/gcgdata/geneseqy-emb1/NA1991.DAT:*
| SIDS2/gcgdata/geneseqy-emb1/NA1991.DAT:*
| SIDS2/gcgdata/geneseqy-emb1/NA1992.DAT:*
| SIDS2/gcgdata/geneseqy-emb1/NA1993.DAT:*
| SIDS2/gcgdata/geneseqy-geneseqn-emb1/NA1993.DAT:*
| SIDS2/gcgdata/geneseqy-geneseqn-emb1/NA1993.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1335
1 gaggtgcagctggtggagtc.....ccctgtctccgggtaaatga 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /SIDS2/gcgdata/geneseg/genesegn-embl/NA2000.DAT:*/SIDS2/gcgdata/geneseg/genesegn-embl/NA2001A.DAT:*/SIDS2/gcgdata/geneseg/genesegn-embl/NA2001B.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 / SIDSZ/gcgdata/geneseq/geneseqn-embl/NA1993.DAT:*/SIDSZ/gcgdata/geneseqreneseqn-embl/NA1994.DAT:*/SIDSZ/gcgdata/geneseqreneseqn-embl/NA1995.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1995.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1996.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1996.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NA1999.DAT:*/SIDSZ/gcgdata/geneseqrenembl/NAT:*/SIDSZ/gcgdata/geneseqrenembl/NAT:*/SIDSZ/gcgdata/geneseqrenembl/NAT:*/SIDSZ/gcgdata/geneseqrenembl/NAT:*/SIDSZ/gcgdata/geneseqrenembl/NAT:*/SIDSZ/gcgdata/geneseqrenembl/NAT:*/SIDSZ/gcgdata/geneseqrenembl/NAT:*/SIDSZ/gcgdata/geneseqrenembl/NAT:*/SIDSZ/gcgdata/geneseqrenembl/NAT:*/SIDSZ/gcgdata/geneseqrenembl/NAT:*/SIDSZ/gcgdata/geneseqrenembl/NAT:*/SIDSZ/gcgdata/geneseqrenembl/NAT:*/SIDSZ/gcg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4370478
GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2185239 seqs, 1125999159 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                             OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N_Geneseq_101002:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-674-716B-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Database
                                                                                                                                                                                                                                                                                                                                                                              Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Perfect
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

/SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2002.DAT:\*

RIES			Description		8 Humanised anti-Cno											4 Anti-HIV-1 rocombi	
SUMMARIES			ID	1 1 1 1 1 1 1		AAC84208	0000	AAC 3822	AAV3548	ACCIOAN	47 / TCUU	AAT1384	02000	AA302/0	AA04994	AA04983	
			DB		21	22		77	13	ć	*	18	Č	* 7	14	14	
			re Match Length DB I		1335	1442	000	1/30	1437	1127	7	1437	1616	0.707	1576	1386	
	øР	Query	Match	1 1 1 1 1	100.0	86.1	90	000	85.9	ď		82.8	a R		85.7	85.6	
			Score		1335	1149.2	1117 0	0./***	1147.2	1147 2		1145.6	1115		1143.6	1142.8	
		Result	No.		7	2		,	4	ľ	, '	٥	7		œ	σ	

Plasmid Glambda-1A Traget plasmid Man	d Hul9CHC	ъ				encodin	Bicistronic chimer	Human recombinant	Plasmid Hu19AHcpcd	chiT84.12 H3 heavy	Baculovirus expres	Human cDNA encodin	Plasmid pTRABac/9F	Encodes heavy chai		Human cDNA encodin		HMFG-	Humanised HMFG-1 h	~	Humanised HMFG-1 h	HMFG-1	HMFG	ed HMFG-1	Synthetic EST-deri	9d	Nucleotide sequenc	Humanised anti-IL-	U	-		mammary	lactalbu	Alpha-lactalbumin
00	41431	43	11429	52784	98701	50599	30315	20745	11427	54655	10574	22593	55051	20066	25692	34965	ABA02666	02690	)2696	34976	ABA02694	02700	02692	)2698	98397	90575	37975	55515	28267	28306	8269	8308	AAD28270	8309
AAC842	AAV41	AAV41	AAV4	AAS627	AAK9	AAZ	AAF	AAD:	AAV.	AAO	ABK	AAS.	ABL!	AAO.	AAQ:	ABK	ABA(	ABA(	ABA(	ABK	ABA(	ABA(	ABA(	ABA(	AAH	AAX	AAZ8	AAC	AAD	AAD?	AAD?	AAD	AAD	AAD
22	19	19	19	24	24	21	22	22	19	15	24	22	24	13	13	24	22	22	22	24	22	22	22	22	22	20	21	21	24	24	24	24	24	24
6281 19035	42	42	42	61	43	34	7521	35	7	64	18	64	18	54	41	59	40	19	22	59	19	22	19	22	97	8119	11	12	20	20	5732	73	9183	9183
85.6 85.6			•		-							•	•	•																			81.0	
1142.8	141.		140.	9	13	13	ω,	113	128.	125.	121.	12	1119.8	1118.6	1117	1105.2	1104.8	1102.2	1102.2	_	60	60	1095.8	60	_	1082.6	8	08	1082	1082	1082	1082	1082	1082
10	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	29	30	31	32	33	34	32	36	37	38	39		41	42	43	44	45
											υ		O																					

Humanised anti-CD23 MAb C11 heavy chain cDNA. AAZ34748 standard; cDNA; 1335 BP (first entry) 15-FEB-2000 AAZ34748; RESULT 1

ALIGNMENTS

CD23; FCERII; IgE receptor; monoclonal antibody; C11; mouse; human; monoclonal antibody; chimeric antibody; humanised antibody; complementarity determining region; CDR; autoimmune disease; inflammation; arthritis; lupus erythematosus; multiple sclerosis; Hashimoto's thyroiditis; dlabetes; uveltis; dermatitis; psoriasis; urticaria; nephrotic syndrome; glomerulonephritis; urticaria; nephrotic syndrome; glomerulonephritis; Soriasis; sinflammatory bowel disease; ulcerative colitis; Crohn's disease; Sjogren's syndrome, allergy; asthma; rhinitis; eczema; insulitis; graft versus-host disease; CoPD; bronchitis; diabetes; B-cell malignancy; therapy; ds. 

99WO-GB01434. 98GB-0009839 07-MAY-1999; 09-MAY-1998; 18-NOV-1999.

W09958679-A1. Homo sapiens. Synthetic.

 $\alpha$ 

```
ACCAGGGGGGGGGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plasmid Glambda-1Bpcd DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Monoclonal antibody; F protein; Glambda-1; human; virucide; RSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAC84208 standard; DNA; 1442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAC84208;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1081
                                                             541
                                                                                                                        601
                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1321
   481
                                 541
                                                                                                                                                        661
                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 2
AAC84208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ
                               QΥ
                                                          q
                                                                                            ò
                                                                                                                     q
                                                                                                                                                       δ
                                                                                                                                                                                   Вb
                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                     òγ
                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                This DNA sequence encodes the heavy chain of humanised anti-CD23

(IgE receptor, FCERII) monoclonal antibody Cl1, composed of a human reamwork (HSIGKVII) and the heavy chain complementarity determining regions (see AAY32256-58) of murine antibody Cl1. The invention provides altered antibodies, such as chimeric or humanised antibodies, which comprise sufficient of the amino acid sequences of the Cl1 light and heavy chain complementarity determining regions to render them capable of binding to the CD23 type II molecule carpressed on heamatoppietic cells. The antibodies are used to block soluble CD23 formation in human therapy, for the treatment of arthritis, lupus erythematosus, Hashimoto's thyroiditis, multiple sclerosis, diabetes, uvelits, dermatitis, psorlasis, urticaria, nephrotic syndrome, glomerulonephritis, inflammatory bowel disease, allergies asthma, intrinsic asthma, acute asthmatic exacerbation, rhinitis, eczema, graft-versus-host disease, COPD, insulitis, bronchitis (particularly chronic bronchitis) or diabetes

(particularly type I diabetes), and B-cell mailignancies (claimed). They are also useful for studying interactions between CD23 and everland and determining the binding agents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                            treating e.g. arthritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGGTGCAGCTGGTGGAGTCTGGGGGGGGGCTTGGTAAAGCCCCGGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCGGTCTTCCCCCTGGCACCCTCCTCCAAGAGCACCTCTGGGGGGCACAGCGGCCCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11arity 100.0%; Score 1335; DB 21; Length 1335; Conservative 0; Mismatches 0. 7777.
                                  ٦
.
                                  Shearin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1335 BP; 321 A; 414 C; 360 G; 240 T; 0 other;
                                 Rapson NT,
                                                                                                          specific antibodies useful for
                                                                                                                          diabetes, multiple sclerosis and psoriasis
                                  Ellis JH,
                                                                                                                                                          Claim 17; Fig 4; 81pp; English.
                                 Bonnefoy JMP, Crowe SJ,
   (GLAX ) GLAXO GROUP
                                                             WPI; 2000-053101/04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
Matches 1335; Conserv
                                                                               P-PSDB; AAY32263
                                                                                                               receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

ò

```
CGAGAACCACAGGTGTACACCCTGCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTC 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGC 1140
                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                 CCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTG 780
                                                                                                                                                                                                                                                                                                                                                               841 GTGCATAATGCCAAGACAAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTC 900
                                                                                                                                                                                                                                                                                                                                                                                                AGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTC 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCTTCCTCTACAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTC
CACACCATGCCCACCGTGCCCAGCACCTGAACTCGCGGGGGCACCGTCAGTCTTCCTCTTC
                                                                                                                                                    GTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAG
                                                                                                                                                                                                                                                                                                                                   GTGCATAATGCCAAGACAAAGCGGGGGGGGGGGGGGTACAACAGCACGTACGGTGTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                   TCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RSV;
                                                                 CACAAGCCCAGCAACACCCAAGGTGGACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             syncytial virus; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                respiratory a propagation;
```

 $\sim$ 

```
The invention provides a human monoclonal antibody (I) and its functional fragments specifically reactive with an F protein epitope of respiratory syncytal virus (RSV), and capable of neutralizing infection by the virus such as Glambda-1A or Glambda-1B. The antibody can be expressed by standard recombinant methodology. (I) is useful for detecting RSV by whether (I) binds to the source (I) is also useful for providing passive hether (I) binds to the source (I) is also useful for prophylactically, to RSV disease in a human. (I) is useful for therapeutic and/or prophylactic treatment of RSV infection in human patients, particularly infants and young children. (I) is also useful as a diagnostic reagent for the determination of RSV mediated disorders or for tracking progress of treatment of the disorders. The present account of the disorders. The present the continuous DNA sequence of the coding region of
                                                                                                                                                                                                                                                                                                                                      of
                                                                                                                                                                                                                                                                                         Human monoclonal antibody and functional fragments, useful for therapeutic and/or prophylactic treatment of respiratory syncytial virus infection, is specifically reactive with the F protein epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1442 BP; 335 A; 458 C; 388 G; 261 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the heavy chain of plasmid Glambda-1Bpcd.
                                                                                                                                                                                                                                                                                                                                                                                              6; Fig 10A-B; 102pp; English.
                                                                                                                                                                         (SMIK ) SMITHKLINE BEECHAM CORP
                                                                                                                                    99US-0134702
                                                                                               2000WO-US13694
                                                                                                                                                                                                                Sweet RW,
                                                                                                                                                                                                                                                   2001-024947/03
                  WO200069462-A1
                                                                                               18-MAY-2000;
                                                                                                                                    18-MAY-1999;
                                                       23-NOV-2000
                                                                                                                                                                                                                Gross MS,
                                                                                                                                                                                                                                                                                                                                                       virus
                                                                                                                                                                                                                                                                                                                                                                                            3,
                                                                                                                                                                                                                                                                                                                                                                                            Claim
```

```
3
                                                                                                                                                                                                                                                                                                                                                                                                      GGGGCACACCGCCCTGGCCTCCTCGTCAACACTCCCCCAACCGGTGACGTG 459
                                                                           GAGGTGCAGCTGGTGGAGTCTGGGAGGCTTGGTACAGCCTGGGGGGGTCCCTGAGACTC 143
                                                                                                  TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                   CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180
                                                                                                                                                                317
                                                                                                                                                                                                                                                                  437
                                                                                                                                                                                                                                                                                                                                                                  GAGGTGCAGCTGGTGGAGTCTGGGGGGGGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTC 60
                           27; Gaps
                                                                                                                  378 CAACCGGGGGAGCTGGCGCCTTTTGACCATTGGGGCCAGGGAACCCTGGTCACCGTCTCC
                                                                                                                                                                                                                                                                                                      -------ACAGATTTCATAGACTGGGGCCAGGGACACTAGTCACCGTCTCC
                                                                                                                                                                                                                                                                                                                                                      TCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCTCCTCCAAGAGCACCTCT
                                                                                                                                                                                                     CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                      CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGT-----
 Score 1149.2; DB 22; Length 1442; Pred. No. 5.2e-215; Mismatches 83; Indels 27; (
                           ;
0
 86.1%;
91.9%;
Query Match
Best Local Similarity 91.9
Matches 1246; Conservative
                                                                           84
                                                                                                                           144
                                                                                                                                                                            204
                                                                                                                                                                                                     181
                                                                                                                                                                                                                             258
                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                            318
                                                                                                                                                                                                                                                                                                     295
                                                                                                                                                                                                                                                                                                                                                      340
                                                                                                                                                                                                                                                                                                                                                                                                      400
                                                                                                  61
                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                             438
                                                  δŻ
                                                                        g
                                                                                                 δλ
                                                                                                                    Op
                                                                                                                                                  Óγ
                                                                                                                                                                     Ω
                                                                                                                                                                                              δŽ
                                                                                                                                                                                                                        D
                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                       QQ
                                                                                                                                                                                                                                                                                              δλ
                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                     ö
```

```
1059
                                                                                                                                                                                                                                                                                                                                                 1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1277
                                                                                                                                                                                                                                                                                                   666
                                                                                                                                                                                                               819
                                       617
                                                                                                        669
                                                                                                                                                      797
                                                                                                                                                                         759
                                                                                                                                                                                            857
                                                                                                                                                                                                                                  917
GGGGGCACAGCGGCCTGGTGCTGGTCAAGGACTACTTCCCCGGAACCGGTGACGGTG
                                                                                                                                                                      TCGTGGAACTCAGCCCCTGACCAGCGGCGTGCACCTTCCCGGCTGTCCTACAGTCC
                               AAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                   TCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAG
                                                                                              ACCTACATCTGCAACGTGAATCACAAGCCCAGCAACAACCAAGGTGGACAAGAAGTGGAG
                                                                                                                                  CCCAAATCTTGTGACAAAACTCACACATGCCCACGTGCCCAGCACCTGAACTCGCGGGG
                                                                                                                                                                                                              CCTGAGGTCACATGCGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAAC
                                                                                                                                                                                                                                                    TGGTACGTGGACGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTAC
                                                                                                                                                                                                                                                                                         AACAGCACGTACCGTGTCAGCGTCCTCACCGTCCTGCAGCACCTGGTGAATGGC
                                                                                                                                                                                                                                                                                                                                                                   TCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGAT
                                                                                                                                                                                                                                                                                                                                                                                     1098 TCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGAT
                                                                                                                                                                                                                                                                                                                                                                                                        1060 GAGCTGACCAAGAACCAGGTCAGCCTGACCTGCTCGAAAGGCTTCTATCCCAGCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCGCCGTGGAGTGGGAGAATGGGCAGCCGGAGACAACTACAAGACCACGCCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCACGCTCACCGTGGACAAGAGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human colon cancer antigen nucleotide sequence SEQ ID NO:230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACGCAGAAGACCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard; cDNA; 1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAC98220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAC98220;
                                                        520
                                                                           618
                                                                                             580
                                                                                                               879
                                                                                                                                                      738
                                                                                                                                                                                           798
                                                                                                                                                                                                             092
                                                                                                                                                                                                                                 858
                                                                                                                                                                                                                                                                                        880
                                                                                                                                                                                                                                                                                                                              940
                                                                                                                                                                                                                                                                                                                                                1038
                                                                                                                                                                                                                                                                                                                                                                  1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1398
                                                                                                                                  640
                                                                                                                                                                         700
                                                                                                                                                                                                                                                    820
                                                                                                                                                                                                                                                                                                                                                                                                                                               1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAC98220
ID AAC9
XX
AC AAC9
AC AAC9
AX AAC9
DT 09-M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
             ΩŸ
                               qq
                                                       Ωy
                                                                     q
                                                                                        ōλ
                                                                                                            Q
                                                                                                                                 Qγ
                                                                                                                                                Q
                                                                                                                                                                    δ
                                                                                                                                                                                        g
                                                                                                                                                                                                        Ωy
                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                   δy
                                                                                                                                                                                                                                                                 Ω
                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                       Dp
                                                                                                                                                                                                                                                                                                                             QΥ
                                                                                                                                                                                                                                                                                                                                            Dp
                                                                                                                                                                                                                                                                                                                                                                Q
                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                      QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dβ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Db
                                                                                                                                                                                                                                                                                                                                                                                                    δŽ
                                                                                                                                                                                                                                                                                                                                                                                                                                             Óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δy
```

```
AAC97991 to AAC98763 encode the human colon cancer associated proteins, called human colon cancer antigens, given in AAB53234 to AAB54006. The human colon cancer antigens can have cytostatic, cardioactive, muscular; human colon cancer antigens can be used in gene therapy, gynaecological, gastrointestinal, can be used in gene therapy. The colon cancer antigen polynuclectides, proteins and antibodies to the proteins are useful for the prevention, treatment and diagnosis of colon disorders, such as colon cancer. The polynuclectides may be used in diagnostics and research, such as for chromosome identification, and as hybridisation probes. The proteins may also be used to prevent diseases such as neutral disorders, immune system disorders, muscular disorders, reproductive disorders, immune gastrointestinal disorders, wounds, renal disorders, infectious diseases, and cardiovascular disorders. AAC98764 to AAC98772 and AAC98707 represent sequences used in the exemplification of the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ed gene sequences, referred to as colon cancer the treatment, prevention, and diagnosis of colon
                        vulnerary;
Human; colon cancer; colon cancer antigen; diagnosis; detection; identification; cytostafic; cardioactive; neuroprotective; vulner. immunomodulatory; muscular; gynaecological; gastrointestinal; nephrotropic; antiinfective; antibacterial; gene therapy; wound; neural disorder; immune system disorder; muscular disorder; reproductive disorder; gastrointestinal disorder; infectious disease; cardiovascular disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1798 BP; 477 A; 529 C; 458 G; 311 T; 23 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 652; 2104pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antigens, useful for the treatmen
disorders such as colon cancer -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Colon cancer associated gene
                                                                                                                                                                                                                                                                                                                                                                               (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                              08-MAR-2000; 2000WO-US05883
                                                                                                                                                                                                                                                                                                                                        99US-0124270.
                                                                                                                                                                                                                                                                                                                                                                                                                         Rosen CA, Ruben SM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2000-587534/55.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P-PSDB; AAB53463.
                                                                                                                                                                                                            WO200055351-A1.
                                                                                                                                                                                                                                                                                                                                        12-MAR-1999;
                                                                                                                                                                                                                                                      21-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              invention.
                                                                                                                                                                       Ношо
```

```
5
                                                                                 265
                                                                                                            CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC 121
                                                                                                                         CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACAC 181
                                                                                                                                                                                                                                                                                         Gaps
                                                       AGGTGCAGCTGGTGGAGTCTGGGGGGGGGTTGGTAAAGCCCCGGGGGGTCCCTTAGACTCT 61
                                                                                                                                                                                 ATTATGCGGAGTCTGTGAAGGGGGAAATTCACCATCTCAAGAGAGATGATTCAAAATCTAGAC
                                                                                                                                                                                                                                      TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACAGATT
Query Match 86.0%; Score 1147.8; DB 21; Length 1798; Best Local Similarity 91.0%; Pred. No. 9.9e-215; Matches 1245; Conservative 10; Mismatches 73; Indels 40;
                                                       ~
                                                                                 506
                                                                                                                                      266
                                                                                                                                                                122
                                                                                                                                                                                           326
                                                                                                                                                                                                                      182
                                                                                                                                                                                                                                                 380
                                                                                                                                                                                                                                                                            242
                                                                                                                                                                                         .
Pp.
                                                                                                                                                                                                                                              Db
                                                                                g
                                                                                                                                   q
                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                     Q
                                                       ò
                                                                                                           ò
                                                                                                                                                                 ò
                                                                                                                                                                                                                     à
```

```
1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1160 TGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATC 1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCC 1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1220 GAGAAAACCATCTCCAAAGCCAAAGGCCAGGCCCGAGAACCACAGGTGTACACCTGCCC 1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAG 1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTG 1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACAAGAGCAGGTGGCAGCAGCAGCGTCTTCTCATGCTCCGTGATGCATGAGGCTCTG 1287
                                                                                                           447
                                                                                                                                                                                                                                                                                                   859
                                                                                                                                                                                                                                                                                                                                            747
                                                                                                                                                                                                                                                                                                                                                                                                 627
                                                                                                                                                                                                                                                                                                                              687
                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGGCCACGAAGACCCTGAG 807
                                                                                                                                                                              -AGACTGGGGCCAGGGAACACTA
                         500 ANGTTACTATGGTTCGGAAAGCATCTACTACTTTGACTCTGGGGCCAGGGAACMCTG
                                                                 TTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGAC
                                                                                                                                     AAGAGCACCTCTGGGGGCACAGGGGCCCTGGGCTGCTGGTCAAGGACTACTTCCCCGAA
                                                                                                                                                                CCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACCTTCCCGGCT
                                                                                                                                                                                                                    GTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                   GAACTCGCGGGGCACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCAAGTTCAACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGG
                                                   GTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTCC
                                                                                                            AAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGGCTGAAGGACTACTTCCCCGAA
                                                                                                                                                                                                                                                                                                                              AAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACGTGCCCAGCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCATCCCGGGATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTAYAGCAAGCTCACCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1520 CACAACCACTACACGCAGAAGAGCCTCTCCCTGTCYCCGGGTAAATGA 1567
                                                                                                                                     620
                                                                                                                                                                                                                                                                         568
                                                                                                                                                                                                                                                                                                   800
                                                                                                                                                                                                                                                                                                                                                                                                             920
                                                                                                                                                                                                                                                                                                                                                                                                                                        748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1460
302
                                                                                                          388
                                                                                                                                                                448
                                                                                                                                                                                        089
                                                                                                                                                                                                                    508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1288
                                                                                                                                                                                                                                                                                                                                                                                 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1228
                      g
                                                                            g
                                                                                                                                   g
                                                                                                                                                                                       QQ
                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                          ò
                                                                                                                                                               ŏ
                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                       δý
                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              dd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ٥y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

28

```
from macaque. This sequence is used in a method which studies new monoclonal antibodies (MAb's) that bind selectively to B7:1 (CDB0) or to Mab's are specific immunosuppressants for treatment of diseases involving T cell/B cell interactions, particularly autoimmune disease, specifically didopathic thrombocytopaenia purpura, systemic lupus erythematosus, type I diabetes mellitus, rheumatoid arthritis, psoriasis, aplastic anaemia, inflammatory bowel disease, alleryy and multiple sclerosis, graft vs. host diseases, B cell lymphoma, infections (including by human immune MAb can be conjugated to a drug or toxin. MAb's, or their fragments, can also be used as imaging agents and a vaccines or immunogens to develop anti-idotype reagents. MAb's are optionally complined with other proteins anti-idotype reagents.
                                                                                                                                                                                                                                                                                                                                                                   CD86; inhibitor; immunosuppressant; treatment; autoimmune disease; IL-2; T cell/B cell interaction; tumour; inflammation; imaging agent; vaccine; immunogen; anti-idiotype reagent; interleukin-2; IgG; immunoglobulin G; T cell proliferation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or small molecule immunosuppressants. Blocking B7/CD28 interactions induces long-term, artigen-specific immunosuppression, i.e. it inhibits production of interleukin-2 (IL-2), T cell proliferation and antigen-specific immunoglobulin G (IGG) responses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This sequence encodes a primatized form of the antibody 7B6 heavy chain
                                                                                                                                                                                                                                                                                                                                      Monoclonal antibody; Mab; macaque; heavy chain; primate; antigen; CD80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New monoclonal antibodies specific for B7.1 or B7.2 antigens and inhibiting binding to CD28 - useful as specific immunosuppressants for treating diseases that involve interactions between T and B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 329 A; 451 C; 387 G; 270 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 85.9%; Score 1147.2; DB 1'90.7%; Pred. No. 1.3e-214; ive 0; Mismatches 83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /*tag= a
/product= 7B6 heavy chain
                                                                                                                                                                                                                                                                   primatized 7B6 heavy chain DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cells, e.g. graft rejection or tumours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7; Fig 4b; 87pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hanna
                                                               DNA; 1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97WO-US19906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96US-0746361
                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PHARM CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Brams P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1998-286601/25.
P-PSDB; AAW63763.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Macaca fascicularis.
                                                        AAV35487 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1437 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (IDEC-) IDEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Anderson DR,
                                                                                                                                                                                               29-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9819706-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-MAY-1998
                                                                                                                               AAV35487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example
                                                                                                                                                                                                                                                                      Macaque
                     AAV3 5487

AAV3 5487

AAV3 5487

AAV3 5487

AAV3 5487

AAV3 5487

AAV3 5487

AAV3 5487

AAV3 5487

AAV3 5487

AAV3 5487

AAV3 5487

AAV3 5487

AAV3 6487

RESULT
```

```
1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGCCAGCCCCGAGAACCACAGGTG 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTG 1137
                                                                                                                                                                                                                                                                                                                                                                                                             615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        975
                     120
                                                              180
                                                                                                        240
                                                                                                                                                            417
                                                                                                                                                                                                                                     375
                                                                                                                                                                                                                                                          477
                                                                                                                                                                                                                                                                                435
                                                                                                                                                                                                                                                                                                                         495
                                                                                                                                                                                                                                                                                                                                               597
                                                                                                                                                                                                                                                                                                                                                                    555
                                                                                                                                                                                                                                                                                                                                                                                       657
                                                                                                                                                                                                                                                                                                                                                                                                                                  717
                                                                                                                                                                                                                                                                                                                                                                                                                                                        675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         957
                                         177
                                                                                                                                                                                                                                                                                                     537
GAGGTGCAACTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGCGGTCCCTGAGAGTC 117
                                                                                                                                                                                                                                                CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                           CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                           238 GAATACGCCGCGTCTGTGAAAGACAGATTCACCATCTCCAGAGATGCTTCCAAAAGCATC
                                                                                                                                                  CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC----
                                                                                                                                                                                                               TCCTACATTTCACATTGTCGGGGTGTGTCTGCTATGGAGGTTACTTCGAATTCTGGGGC
                                                                                                                                                                                                                                     CAGGGAACACTAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTG
                                                                                                                                                                                                                                                                                GCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGAC
                                                                                                                                                                                                                                                                                           TACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCAC
                                                                                                                                                                                                                                                                                                                                    ACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTG
                                                                                                                                                                                                                                                                                                                                                                              CCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACACCCTCATGATCTCCCGGACCCCTGAGGTCACGTGGTGGTGGTGGACGTGAGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGTGGACGTGAGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               856 ACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT
                                 ------AGATTTCATAGACTGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCAAGGTGGACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCG
                                                                                                                                                                                           -----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1018
                    61
                                        118
                                                             121
                                                                                  178
                                                                                                       181
                                                                                                                                                                     298
                                                                                                                                                                                           297
                                                                                                                                                                                                               358
                                                                                                                                                                                                                                    316
                                                                                                                                                                                                                                                         418
                                                                                                                                                                                                                                                                              376
                                                                                                                                                                                                                                                                                                   478
                                                                                                                                                                                                                                                                                                                         436
                                                                                                                                                                                                                                                                                                                                             538
                                                                                                                                                                                                                                                                                                                                                                   496
                                                                                                                                                                                                                                                                                                                                                                                       598
                                                                                                                                                                                                                                                                                                                                                                                                            556
                                                                                                                                                                                                                                                                                                                                                                                                                                 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                      919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        916
                                      Db
                                                                              g
                                                                                                                        Пр
                                                                                                                                                                Ωp
                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                  Db
                                                                                                                                                                                                                                                                                                                       οy
                                                                                                                                                                                                                                                                                                                                           Db
                                                                                                                                                                                                                                                                                                                                                                  δý
                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                          οχ
                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   òγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δŻ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ΩŽ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                 Ω
                                                            δý
                                                                                                     οy
                                                                                                                                              οy
                                                                                                                                                                                         ÓΥ
                                                                                                                                                                                                                                 Ω
                                                                                                                                                                                                                                                                             QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
```

1138

1;

Gaps

45;

Indels

83;

DB 19; Length 1437;

Best Local Similarity 90.7 Matches 1252; Conservative

Query Match

Ϊ;

```
1215
                                                                                     1317
                                                                                                                                                                         1335
                                                                                                                                                                                                   1437
                                                                                                                                                                                                                                                                                                                                                                           Human; macaque monkey; light chain; primatised antibody; 7B6 antibody; neuroprotective; apoptosis inducer; allergy; CD28 receptor antagonist; B7_1 antigen; CD86; B cell cancer; metastasis; tumour; B cell lymphoma; B cell leukaemia; autoimmune disease; graft-yer,ost disease; immunosuppression; organ rejection:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Use of monoclonal antibody which specifically binds to B7.1 antigen CD80 and/or B7.2 antigen CD86 for inducing apoptosis of B7+ cells, treating cancer, graft-vs-host disease and autoimmune disease such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention relates to a new use of a monoclonal antibody which specifically binds to B7.1 antigen (CD80) and/or B7.2 antigen (CD86) for inducing the apoptosis of B7+ cells. The invention is useful for treating diseases such as B cell cancer, lymphoma, a cancer where B cells promote the growth and/or metastasis of tumours, B cell lymphoma; B cell leukaemia, and autoimmune diseases such as idiopathic thrombocytopenia purpura, systemic lupus, erythematosus,
                                                                                                                                                                                                                                                                                                                                                            sequence of a primatised form of the heavy chain of 786 antibody
GTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCGGAG
                                                                      1378 CATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCCTGTCTCCGGGTAAATGA
                          GTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAG
                                                                                                                AAGCTCACCGTGGACAAGAGCAGGTGGCAGCGGGGAACGTCTTCTCATGCTCCGTGATG
                                                                                                                                                                         CATGAGGCTCTGCACCACTACACGCAGAAGAGCTCTCCCTGTCTCCGGGTAAATGA
                                                       AACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Heavy chain of 7B6 antibody
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 8; Fig 4b; 89pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ρ;
                                                                                                                                                                                                                                                                          BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                            interleukin-2; IL-2; mutant; ds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Brams
                                                                                                                                                                                                                                                                        DNA; 1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-MAY-2000; 2000US-0576424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001WO-US16364
                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ผ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /product=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       - Homo sapiens.
- Macaca sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hanna N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (IDEC-) IDEC PHARM CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2002-089895/12.
                                                                                                                                                                                                                                                                        AAS17245 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P-PSDB; AAU11644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200189567-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anderson DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22-MAY-2001;
                                                                                                                                                                                                                                                                                                                                 12-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chimeric
Chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 allergy
                            1198
                                                                                  1258
                                                                                                              1216
                                                                                                                                            1318
 1096
                                                       1156
                                                                                                                                                                       1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Key
                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                           AAS17
ò
                         q
                                                        ð
                                                                                  g
                                                                                                                ò
                                                                                                                                           g
                                                                                                                                                                       à
                                                                                                                                                                                                  g
```

```
anaemia, inflammatory bile disease, allery, multiple sclerosis or graft-vs-host disease. The antibody is useful for immunosuppression in a human or animal and for treating or preventing resistance to or rejection of transplanted organ or tissue for treating proliferative and hyperproliferative diseases, for treating reversible obstructive airways disease, intestinal inflammations and allergies e.g. Crohn's disease and ulcerative colitis, food-related allergies e.g. migraine, rhinitis and eczema, and other types of allergies. The present nucleic acid sequence encodes the heavy chain of 786, a primatised antibody used in the invention to induce apoptosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGGGAACACTAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTG. 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
diabetes mellitus, rheumatoid arthritis, psoriasis, aplastic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGGTGCAGCTGGTGGAGTCTGGGGGGGGCTTGGTAAAGCCCGGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACACGCGTGTATTACTGTAC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            358 TCCTACATTTCACATTGTCGGGGTGTGTCTGCTATGGAGGTTACTTCGAATTCTGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cassescentestratestratestrates and a second s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGACCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCAAGGTGGACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ----AGATTTCATAGACTGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCCCAGCACCTGAACTCCTGGGGGGACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAAG
                                                                                                                                                                                                                                                                                                                                                                   Score 1147.2; DB 24; Length 1437;
Pred. No. 1.3e-214;
0; Mismatches 83; Indels 45; C
                                                                                                                                                                                                                                                                                                                    Sequence 1437 BP; 329 A; 451 C; 387 G; 270 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                   85.9%;
larity 90.7%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Sim
Matches 1252;
                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
222222222222X8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

7

```
81pp;
                       9B;
                        Fig
                       8
Monkey
useful
                        Claim
                                                                                                                                                                                                                                                                                                                                                                                 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9/9
                                                                                                                                                                                                                                                                                                                                                  297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               496
                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                             Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
δ
                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                  Q\underline{y}
                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                 QΥ
                                                                                                                                                                                                                                                                                                                             OD
                                                                                                                                                                                                                                                                                                                                            QΥ
                                                                                                                                                                                                                                                                                                                                                             Dp
                                                                                                                                                                                                                                                                                                                                                                                Ω
                                                                                                                                                                                                                                                                                                                                                                                            QQ
                                                                                                                                                                                                                                                                                                                                                                                                             QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                Ωÿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              οy
                                                                                      1077
                                                                                                            1078 CCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGAGCCCCGAGAACCACGTG 1137
                                                                                                                                            AAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATG 1275
                                                                                                                                                                                                                                                                           1378 CATGAGGCTCTGCACAACACCACTACACGCAGAAGAGCCTCTCCCCTGTCTCCGGGTAAATGA 1437
                                                                      975
                                               GAAGACCCTGAGGTCAACTCCAACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAG
                                                                     CTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTC
                                                                                                      CCAGCCCCCATCGAGAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTG
                                                                                                                                                                     GTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAAAAGGCAATGGGCAGCCGGAG
                                                                                                                                                                                                    AACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGC
                                                                                                                                                                                                                                                                  CATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA
       GAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGCGCGTGGAGGTGCATAATGCCAAG
                                                                                                                                     ACAAAGCCGCGGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTC
                                                                                                                                                                                                                                                                                                                                                                                       Monoclonal antibody; cynomolgus monkey; macaque; 7B6; primatised antibody; B7 antigen; CD28; immunosuppressive; autoimmune disease; idiopathic thrombocytopaenia purpura; systemic lupus erythematosus; rheumatoid arthritis; psoriasis; type 1 diabetes mellitus; graft versus host disease; hetero-hybridoma; transfectoma; ss.
                                                                                                                                                                                                                                                                                                                                                                        Primatised anti-human B7.1 antigen antibody 786 heavy chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Shestowsky
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ž
                                                                                                                                                                                                                                                                                                                          BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hanna
                                                                                                                                                                                                                                                                                                                         AAT13847 standard; DNA; 1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                cynomolgus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96WO-US10053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95US-0487550
                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PHARM CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Brams P,
                                                                                                                                                                                                                                                                                                                                                                                                                                              Chimeric Macaca cynom
Chimeric Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1997-108638/10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P-PSDB; AAW01820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Anderson DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (IDEC-) IDEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9640878-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-DEC-1996.
                                                                                                                                                                                                                                                                                                                                                         25-MAY-1997
                                                                                                                                                                                                                                                                                                                                         AAT13847;
                                                                                                                                                                                                                                   1216
                                                                                                                                                                                                                                                  1318
                                                                                                                                                                                                                                                                  1276
                                                                                      1018
                                                                                                                                                     1138
                                                                                                                                                                                    1198
                                                                                                                                                                                                    1156
                                                                                                                                                                                                                   1258
                                                     928
                                                                      916
                                                                                                                                     1036
                                                                                                                                                                     1096
                      868
                                      856
                                                                                                     916
       96/
                                                                                                                                                                                                                                                                                                         g
                                                                                     qq
                                                                                                                   g
                                                                                                                                                 qq
                                                                                                                                                                 Qγ
                                                                                                                                                                                 qq
                                                                                                                                                                                                 Qγ
                                                                                                                                                                                                                              ōλ
                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                  ŏ
                                                                                                                                                                                                                                                                               a
       δ
                                     ŏ
                                                    QQ
                                                                     δy
                                                                                                     à
                                                                                                                                    δ
                                                                                                                                                                                                                Dp
```

```
2 DNA sequences (AAT62511 and AAT13847) respectively code for primatised forms (AAW01819) and AAW01820) of the light and heavy chains of cynomolgus monkey anti-human B7.1 antigen monoclonal antibody 7B6. Cloned 7B6 light and heavy variable genes are inserted into an expression vector (pref. NEOSPLA) which contains human light and heavy chain constant region genes to allow prodn. of primatised antibody in e.g. CHO cells. Primatised 7C10 and 16C10 anti-B7.1 antibodies have also been produced (see also AAW01817-18 and AAW01821-22). The primatised antibodies inhibit the B7:CD28 pathway, making them useful immunosuppressants for the treatment of autoimmune disorders and graft-versus-host disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
monoclonal antibody binding human {\rm B7.1} or {\rm B7.2} antigen for treating autoimmune disease or graft-versus-host disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GAGGTGCAGCTGGTGGAGTCTGGGGGGGGTTGGTAAAGCCCGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         238 GAATACGCCGCGTCTGTGAAAGACAGATTCACCATCTCCAGAGATGATTCCAAAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         --AGATTTCATAGACTGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGGGAACACTAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCAAGGTGGACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCCAGCACCTGAACTCGCGGGGCACCGTCAGTCTTCCTCTTCCCCCCCAAAACCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     358 TCCTACATTTCACATTGTCGGGGTGGTGTCTGCTATGGAGGTTACTTCGAATTCTGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 18; Length 1437;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1437 BP; 329 A; 452 C; 387 G; 269 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1145.6; DB 18,
Pred. No. 2.6e-214;
0; Mismatches 84;
                                                                           English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 85.8%;
Best Local Similarity 90.7%;
Matches 1251; Conservative
```

;;

us-09-674-716b-18.rng

WPI; 2002-010900/01

```
protein; hyperproliferative disorder; autoimmune disorder;
                                                                                                                                                                                              1035
                                                                                                                                                                                                                                      1095
                                                                                                                                                                                                                                                                                1155
                                                                                                                                                                                                                                                                                                                           1215
                                                                                                                                                                                                                                                                                                                                                                     1275
                                                                                                                                                                                                                                                                                                                                                                                                            1017
                                                                                                                                                                        1077
                                                                                                                                                                                                                                                                                                                                                1317
                                                                                                                                                                                                                1078 ccaeccccarceagaaaaccarcrccaaagccaaaggcagcccgagaaccacaggrg 1137
                                          897
                                                                855
                                                                                     957
                                                                                                          915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immune deficiency disorder; blood disorder; inflammatory disorder;
infectious disorder; gene therapy; antimicrobial; hepatotropic;
immunosuppressive; antirheumatic; ss.
CCAGCCCCCATCGAGAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTG
                                                                                                                                                                                                                                                 1138 TACACCCTGCCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTCAGCTGACCTGACCTG
                                                                                                                                                                                                                                                                                GTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGGAGAGCAATGGGCAGCCGGAG
                                                                                                                                                                                                                                                                                           GTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGGGGAGAGCCATTGTGCCAGCCGGAG
                                                                                                                                                                                                                                                                                                                                     796 GAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAG
                                                                                                          ACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTC
                                                                                                                                                   CTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTC
                                                                                                                                                                                                                                     AACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGC
                                                                                                                                                                                                                                                                                                                                                                   AAGCTCACCGTGGACAAGAGCAGGTGGCAGGGGAACGTCTTCTCATGCTCCGTGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Resnick
                     736 GACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cDNA sequence #572 encoding novel human secreted protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Howes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Agostino MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fechtel K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAS62785 standard; cDNA; 1616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-MAR-2001; 2001WO-US10485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-APR-2000; 2000US-195604P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GEMY ) GENETICS INST INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gulukota K, Graham JR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Clark HF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200177291-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo saptens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAS62785;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wong GG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human
                                                                                                                              928
                                                                                                                                                   916
                                                                                                                                                                                                                                                                               1096
                                                                                                                                                                                                                                                                                                                                                                   1216
                                                                                                                                                                                                                                                                                                                                                                                        1318
                                                                                                        856
                                                                                                                                                                                             916
                                                                                                                                                                                                                                                                                                   1198
                                                                                                                                                                                                                                                                                                                         1156
                                                                                                                                                                                                                                                                                                                                              1258
                                                                                                                                                                                                                                     1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 7
g
                     ò
                                          음
                                                               ò
                                                                                   qq
                                                                                                         ò
                                                                                                                             g
                                                                                                                                                  ò
                                                                                                                                                                      g
                                                                                                                                                                                             ò
                                                                                                                                                                                                            g
                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                               Q
```

```
The present invention relates to the isolation of novel CDNA sequences which encode human secreted proteins. The CDNA sequences have been derived from a variety of human tissues. The invention also provides a method for producing proteins from these polynuclectide sequences. The proteins are useful for identifying compounds that modulate their activity and production, and the cell is also useful for identifying compounds that modulate expression of the polynuclectide sequences encoding the secreted proteins. The sequences of the invention are useful for treating diseases such as hyperproliferative disorders (e.g. cancer), immune deficiency disorders (e.g. severe combined immunodeficiency (SCID), autoimmune disorders (e.g. multiple sclerosis), blood disorders (e.g. thrombocytopaenia), inflammatory disorders (e.g. rhe polynuclectide sequences of the invention are also useful in gene therapy, AASSC2214-AASSC2838 represent the CDNA sequences of the
                                 e.9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCTGGTCAAGGACTACTTCCCCGAA 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGC 722
                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GAGGTGCAGCTGGTGGAGTCTGGGAGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----CAGATTTCATAGACTGGGGCCAGGGAACACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCACCGTCTCCTCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCTCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCTGCAGAGGTTCTGGATTCCCGTTTGGTGATTATGGTGTGAGCTGGGTCCGCCAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGGCGGTGTATTACTGTA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                Length 1616;
                              for
                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                    invention that encode for novel human secreted proteins
                                                                                                                                                                                                                                                                                                                                                                   Sequence 1616 BP; 369 A; 503 C; 441 G; 298 T; 5 other;
                                secreted proteins useful
                                                                                                                                                                                                                                                                                                                                                                                                Score 1145; DB 24;
Pred. No. 3.4e-214;
0; Mismatches 93;
                                                                        Page 363-364; 391pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                              .;
0
                                           HIV and Crohn's disease
                                                                                                                                                                                                                                                                                                                                                                                                85.8%;
                                encoding
                                                                                                                                                                                                                                                                                                                                                                                                                Similarity 90.8
12; Conservative
                            New polynucleotides asthma, HIV and Crob
                                                                                                                                                                                                                                                                                                                                                                                                                3est_Local Sim
Matches 1242;
                                                                           Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                268
qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           αq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δy
```

;

σ

us-09-674-716b-18.rng

```
338
                                                                                                                                                                                                                                                                                                                                                                    397
                                                                                                                                                                                                                                                                                                                                                                                398
                                                                                                                                                                                                                                                                                                                                                                                             457
                                                                                                                                                                                                                                                                                                                                                                                                          458
                                                                                                                                                                                                                                                                                                                                                                                                                                               577
                                                                                                                                                                                                                                                                                                                                                                                                                                                             578
qq
                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                  ò
                                                                                                                                                                                                                          òγ
                                                                                                                                                                                                                                                    Qχ
                                                                                                                                                                                                                                                              Pp
                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                       Pp
                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                   Op
                                                                                                                                                                                                                                                                                                                                                                                                                      Op
                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                              Ω
                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                      οy
                                                                                                                                                                                                                                                                                                                                                                                ŏ
                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                          \Omega
                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                            δy
                                                                                                                                                              1167
                                                                                                                                                                                                                                   ACCACGCCTCCCGTGCTGGACTCCGACGCTCCTTCTTCCTCTACAGCAAGCTCACCGTG 1227
                                                                                                                                                                                                                                          1442
                                                                                   GAGAAAACCATCTCCAAAGGCCAGGCCCGGAGAACCACAGGTGTACACCCTGCCC 1047
                                                                                                                                                                                 GACAAGAGCAGCAGCAGCAGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTG 1287
          ATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAG 807
                                                                             GTCAAGTICAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGG 867
    687
                                                                                                                                      GAACTCGCGGGGGCACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATG
                                                          GAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGAC
                                                                                                                              TGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATC
                                                                                                                                                                                        1203 CCATCCCGGGAGGAGATGACCAGGACAGGTCAGCCTGACCTGGTCAAAGGCTTC
                                                                                                                                                                                                          TATCCCAGCGACATCGCCGTGGAGTGGGAGGATGGGGCAGCCGGAGAACAACTACAAG
                                                                                                                                                                                                                  1383 GACAAGAAGAAGAGAGAAGAAACATCTTCTCATGCTCCGTGATGCATGAGGCTNTG
  AAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACAACGTGCCCACGTGCCCAGCACCT
                                                                                                                                                                                                                                                                                    body; Ab; light; heavy; chain; hepatitis B; surface antigen; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2, page 27"
                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
15..1394
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                     15..41
/*tag= b
42..1391
/*tag= c
/note= "claim 2
                                                                                                                                                                                                                                                                                                                                 AAQ49944 standard; cDNA; 1576
                                                                                                                                                                                                                                                                                                                                                                      Human anti-HBs heavy chain
                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                    Antibody; Ab;
                                                                                                                                                                                                                                                                                                                                                           29-APR-1994
                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                      sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                   mat_peptide
                                                                                                                                                                                                                                                                                                                                              AAQ49944;
                                                                                                                                                                                 1048
                                                                                                                                                                                                                       1263
  628
               783
                           889
                                       843
                                                     748
                                                                903
                                                                             808
                                                                                          696
                                                                                                                               928
                                                                                                                                                        988
                                                                                                                                                                                                           1108
                                                                                                                                                                                                                                   1168
                                                                                                                                                                                                                                                1323
                                                                                                      898
                                                                                                                                                                                                                                                            1228
                                                                                                                                                                                                                                                                                                                                                                                                                   Key
                                                                                                                                                                                                                                                                                                                    g
                                     g
                                                               qq
  ò
                          ò
                                                   QΥ
                                                                             ŏ
                                                                                       qq
                                                                                                     δ
                                                                                                                Op
                                                                                                                             οy
                                                                                                                                         q
                                                                                                                                                       ò
                                                                                                                                                                 g
                                                                                                                                                                                 ŏ
                                                                                                                                                                                            qq
                                                                                                                                                                                                         δλ
                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                           δ
```

```
162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62 CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAAGTGG 637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            122 CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 AGGTGCAGCTGGTGGAGTCTGGGGGGGGTAAAAGCCCGGGGGGGTCCCTTAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               242 TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGGGGGCAACAGCGCCCTGGCTGCCTGGTCAAGGACTACTTCCCCGGAACCGGTGACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         182 ATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----GATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               337 ATCAAACTTACGGAGTCCACAGATTTGACTCCTGGGGCCAGGGAACCCTGGTCACCGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTCCTCCAAGAGCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human anti-hepatitis B surface antigen antibody gene - can be used to produce L and H chains of the antibody in large quantity
                                                                                                                                                                                                                                                                                                                                                                                                          produced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30;
                                                                                                                                                                                              ż
                                                                                                                                                                                                                                                                                                                                                                              Polynucleotides encoding the L and H chains of human anti-HBs Ab are given in AAQ49943-Q49944. The Ab can be easily product large quantities for therapeutic use.
                                                                                                                                                                                              Tsuruoka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 14; Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      84; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1576 BP; 394 A; 483 C; 426 G; 273 T; 0 other;
                                                                                                                                                                                            Nishihara T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1143.6; DB 14
Pred. No. 6.4e-214;
0; Mismatches 84;
                                                                                                                                                                                            Matsukura S,
                                                                                                                                                                                                                                                                                                                                            Disclosure; Fig 6-8; 46pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 85.7%;
Best Local Similarity 91.6%;
Matches 1244; Conservative
                                                                            93WO-JP00396
                                                                                                                92JP-0074678
                                                                                                                                                                                          Arima K, Kurihara T,
                                                                                                                                                                                                                            WPI; 1993-336913/42.
                                                                                                                                                    (SUNR ) SUNTORY LID
                                                                                                                                                                                                                                                  P-PSDB; AAR42066
                                                                          30-MAR-1993;
                                                                                                                30-MAR-1992;
WO9320205-A
                                    14-OCT-1993
```

```
23-MAR-1993;
                                                         01-APR-1992;
       W09319785-A
                       14-OCT-1993
                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                    Н
                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
g
                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                        1116
                                                                                                                                                                                                                                                         1117
                                                                                                                                                                                               1057
                                                                                                                                                                                                                                                                          ATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCG 1176
                                                                                                                                                                                                                                                                                                   GGTGGCAGCGGGAACGTCTTCTCATGCTCCCGTGATGCATGAGCTCTGCACAACCACT 1356
                                                                                                                                                                                                                                                                                           ACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTC 1177
                                                                                                                                                                                                                                                                                                                           CCGTGCTGGACTCCGACGGCTCCTTCTTCCTTACAGCAAGCTCACCGTGGACAAGAGCA 1237
                269
                                756
                                                 757
                                                                  816
                                                                                  817
                                                                                                   876
                                                                                                                    877
                                                                                                                                     936
                                                                                                                                                     937
                                                                                                                                                                      966
                                                                                                                                                                                       997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Anti-HIV-1 recombinant antibody 447-52D heavy chain coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human Immunodeficiency Virus; antigen; ELISA; recombinant antibody; HIV-neutralising monoclonal antibody; immunoglobulin; AIDS; acquired immune deficiency syndrome; chimeric antibody; surface glycoprotein gpl20; V3 loop; ss.
                                                         ACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATG
                                                                                                                                                               GCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCA
                                                                                                                                                                                                                                ATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAAGGCTTCTATCCCAGCG
                                                                                                                                                                                                                                                                                                                                                             GGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACT
637 AGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCCAAGGTGGACAAGAAGTTG
                         GGGCACCGTCAGTCTTCCTCTTCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGA
                                                                                    CCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCA
                                                                                                                    ACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGT
                                                                                                                                                                                                                         TCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGG
                AGCCCAAATCTTGTGACAAACTCACACATGCCCACCGTGCCCAGCACCTGAACTCGCGG
                                                                                                                                                                                                                                                                   1.1386 /*tag= a /*tag= a /note= "encodes recombinantly modified 447-52D
                                                                                                                                                                                                                                                                                                                                                                                              ACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                      ACACGCAGAAGACCTCTCCCTGTCTCCGGGTAAATGA 1394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        heavy chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAQ49834 standard; cDNA; 1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-APR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAQ49834;
                                                                                                                                                                                                                                                                                                                                                                                                               1357
                                                                                                                                                                                                                                          1057
                                                                                                                                                                                                                                                            1058
                                                                                                                                                                                                                                                                            1117
                                                                                                                                                                                                                                                                                                             1177
                                                                                                                                                                                                                                                                                                                              1178
                                                                                                                                                                                                                                                                                                                                             1237
                                                                                                                                                                                                                                                                                                                                                               1238
                                                                                                                                                                                                                                                                                                                                                                               1297
                                                                   757
                                                                                                                                     877
                                                                                                                                                        878
                                                                                                                                                                                         938
                                                                                                                                                                                                         997
                                                                                                                                                                                                                                                                                             1118
                  638
                                  697
                                                   869
                                                                                    758
                                                                                                     817
                                                                                                                      818
                                                                                                                                                                        937
                                                                                                                                                                                                                          866
                                                                                                                                                                                                                                                                                                                                                                                                1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAQ49834
                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                       q
                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                        ò
                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                             õ
                  ò
                                  g
                                                    à
                                                                  g
                                                                                    ò
                                                                                                     g
                                                                                                                      ŏ
                                                                                                                                     8
                                                                                                                                                        ò
                                                                                                                                                                        a
```

```
296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAGGGAAGGGGCTGGAGTGGGTCGGCCGTATTAAAAGCAGAACTGATGGTGGGAAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   producing human MAbs specific for the gp120 V3 loop of HIV-1 MN isolate were obtained. MAb 447-52D was found to recognise the tetrapeptide motif GPGK, i.e. the Principal Neutralising Determinant common to the V3 loop of different HIV isolates. A recombinant Ab was produced in which the H chain V region was derived from 447-52D and to which a signal sequence and a H chain intronic sequence are appended, fused to a fragment contg. a short intronic segment of the human gamma I C region and the human gamma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGGTGCAGCTGGTGGAGTCTGGGGGGGGTTGGTAAAGCCCCGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----AGATTTCATAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 310 TGGGGCCAGGGAACACTAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            370 CCCCTGGCACCCTCCTAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 GATGGTTTTATTATGATTCGGGGAGTCTCCGAGGACTACTACTACTACTACATGGACGTT
                                                                                                                                                                                                                                                                                                     New recombinant human antibody - with HIV neutralising activity against at least two isolates, useful for preventing or treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 14; Length 1386;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 82; Indels
                                                                                                                                                                                      DS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1386 BP; 333 A; 429 C; 377 G; 247 T; 0 other;
                                                                                                                                                                                      Pfarr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1142.8; DB 14
Pred. No. 9.1e-214;
); Mismatches 82;
                                                                                                                                                                                      Mark GE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            encoding domain in its genomic form
                                                                                                                                                                                        Johnson LS,
                                                                                                                                                                                                                                                                                                                                                                                                Example 9; Fig 2A; 154pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    85.6%;
                                                                                                                                                                                                                                                                                                                                against at least two isolate
infection in diagnosis, etc.
                                            92US-0861701
93WO-US02629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 90.4 Matches 1253; Conservative
                                                                                        (MERI ) MERCK & CO INC. (JOHN/) JOHNSON L S.
                                                                                                                                                                                        Conley AJ, Emini EA,
                                                                                                                 (JOHN/) JOHNSON L S. (PFAR/) PFARR D S.
                                                                                                                                                                                                                                  WPI; 1993-336600/42.
P-PSDB; AAR42162.
```

ä

us-09-674-716b-18.rng

```
1366 CAACCGGGGGAGCTGGCGCCTTTTGACCATTGGGGCCAGGGAACCCTGGTCACCGTCTCC 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1306
ōλ
                                                                                                                                                                                                                                                                                                                                                                                       Pp
                                                                                                                                                                                                                                                                                                                                                                                                      δy
                                                                                                                                                                                                                                                                                                                                                                                                                   Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                    οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ΩŸ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ·λσ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                 1089
                                                                                                                                                                                                                                                                                                                                                                         1260
                                                                                                                                                                                                                                              1270 GTGATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGT 1329
                                                                                                                                                                                                                                                                                                                                                                                                                             849
                                                                        099
                                   GTGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTG
                                                        550 ACCGIGCCCICCAGCAGCITGGGCACCCAGACCIACAICIGCAACGIGAAICACAAGCCC
                                                                AGCAACACCAAGGTGGACAAGAAAGTGGAGCCCCAAATCTTGTGACAAAACTCACACATGC
                                                                                             CCACCGTGCCCAGCACCTGAACTCCTGGGGGGACCGTCAGTCTTCCTCTTCCCCCCAAAA
                                                                                                                                                CCCAAGGACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTG
                                                                                                                                                                            AGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAAT
                                                                                                                                                                                                         GCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGGTCAGCGTCTC
                                                                                                                                                                                                                                      910 ACCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAA
                                                                                                                                                                                                                                                                   GCCCTCCCAGCCCCCATCGAGAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCA
                                                                                                                                                                                                                                                                                                CAGGIGIACACCCTGCCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTCAGCCTGACC
                                                                                                                                                                                                                                                                                                              1081 CAGGIGIACACCCIGCCCCATCCCGGGAIGAGCIGACCAAGAACCAGGICAGCCTGACC
                                                                                                                                                                                                                                                                                                                             1090 TGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGGAGAGCAATGGGCAG
                                                                                                                                                                                                                                                                                                                                                          1150 CCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTC
                                                                                                                                                                                                                                                                                                                                                                                       TACAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAC84206 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1330 AAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381 AAATGA 1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAC84206;
                                                                                                                                                                                                                                                                                                                                                                                       1210
                                                                                                                                                             781
                                                                                                                                                                            790
                                                                                                                                                                                                         850
                                                                                                                                                                                                                                                                   970
                                                                                     610
                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                1030
                           490
                                         541
                                                                                                   199
                                                                                                                  670
                                                                                                                               721
                                                                                                                                               730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAC84206
ID AAC8
XX
AC AAC8
XX
DT 19-M
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
O
           qq
                                         g
                                                                     g
                                                                                    δ
                                                                                                 qq
                                                                                                                 ò
                                                                                                                              g
                                                                                                                                                          g
                                                                                                                                                                           ò
                                                                                                                                                                                          g
                                                                                                                                                                                                         δ
                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                      οχ
                                                                                                                                                                                                                                                 Ωp
                                                                                                                                                                                                                                                               οy
                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                      δý
                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                      οy
                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                   οy
                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Qγ
                           Qγ
                                                        οy
                                                                                                                                              ò
```

```
The invention provides a human monoclonal antibody (I) and its functional fragments specifically reactive with an F protein epitope of respiratory syncytial virus (RSV), and capable of neutralizing infection by the virus such as Glambda-IA or Glambda-IB. The antibody can be expressed by standard recombinant methodology. (I) is useful for detecting RSV by contacting a source suspected of containing RSV with (I) and determining whether (I) binds to the source. (I) is also useful for providing passive for therapeutic and/or prophlactic treatment of RSV infection in human patients, particularly infants and young children. (I) is also useful as a diagnostic reagent for the determination of RSV infection in human as a diagnostic reagent for the determination of RSV mediated disorders or for tracking progress of treatment of the disorders. The present sequence represents the continuous DNA sequence of the expression plasmid common and a sequence of the expression plasmid the manner of the described on the containing the RSV neutralising human Glambda-I mAb for the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        therapeutic and/or proph/lactic treatment of respiratory syncytial virus infection, is specifically reactive with the F protein epitope of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1192 CCAGGGAAGGGGCTGGAATGGGTCTCTTCCATT-----ACTGGTATGAGTAATTACATA 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GAGGTGCAGCTGGTGGAGTCTGGGGGGAGGCTTGGTAAAAGCCCGGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                              RSV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 22; Length 6281;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human monoclonal antibody and functional fragments, useful for
                                                           Monoclonal antibody; F protein; respiratory syncytial virus; Glambda-1; human; virucide; RSV propagation; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 6281 BP; 1555 A; 1634 C; 1618 G; 1474 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. 1e-213;
0; Mismatches 87; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1142.8;
Plasmid Glambda-1Apcd DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 6; Fig 8A-F; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SMIK ) SMITHKLINE BEECHAM CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     85.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Taylor
                                                                                                                                                                                                                                                                                                                                                                                                          99US-0134702
                                                                                                                                                                                                                                                                                                                                               2000WO-US13694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 91.6
Matches 1242; Conservative
                                                    Monoclonal antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sweet RW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-024947/03
                                                                                                                                                                                                                  WO200069462-A1
                                                                                                                                                                                                                                                                                                                                            18-MAY-2000;
                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                       18-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               chain.
                                                                                                                                                                                                                                                                                23-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gross MS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           heavy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
```

5

CTGTATCTGCAAATGAACAGCCTGACAGCCGAGGACACGGGTGTTTATTATTGTGCGACA 1365

------ACAGATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCC

us-09-674-716b-18.rng

12

Page

SS.

missing

the

in

missing

the

ţu

1486

460

400

1426

340

ò Q ò g ò g ò g ò g à qq ò g ò g ò g ò g ò 임 ò g ò g ò g ò 8 à 염 ò g

1546 520 1606 9991

580

1726

700

640

820

880 9961 2026 1000

940

1060

1120 2206 1180 2266

2146

1846

760

/\*tag= h /note= "these bases represent nucleotides missing homologous recombination; vector; neomycin phosphotransferase; neo gene; selectable marker; immunoglobulin; CD23; 5E8; human; gene amplification; a "this base represents a nucleotide from the sequence given in the specification. It is included to maintain the nucleotide numbering specification for this sequence" b this base represents a nucleotide from the sequence given in the specification. It is included to maintain the nucleotide numbering specification for this sequence. this base represents a nucleotide from the sequence given in the specification. It is included to maintain the nucleotide numbering specification for this sequence. e "this base represents a nucleotide g this base represents a nucleotide "this base represents a nucleotide n. It is included to nucleotide numbering from the sequence given in the specification. It is included to maintain the nucleotide numbering from the sequence given in the specification. It is included to maintain the nucleotide numbering specification for this sequence. "these bases represent nucleotides from the sequence given in the specification. They are included maintain the nucleotide numbering specification for this sequence. maintain the nucleotide numbering specification for this sequence" maintain the nucleotide numberin specification for this sequence" from the sequence given in the specification. It is included Traget plasmid Mandy containing anti-CD23 gene.

missing

ţu

missing

the

in

missing

ţu

missing

i to

missing

in

AAV61794

RESULT 11 AAV61794 ID AAV6

2386

```
"these bases represent nucleotides missing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "these bases represent nucleotides missing
                                                                                                                                                                                                                                 missing
                                                                                                                                                                                                                                                                                                                "these bases represent nucleotides missing
                                                                                                                                                                                                                                                                                                                                                                                              "these bases represent nucleotides missing
                                                                  "this base represents a nucleotide missing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Site specific integration of DNA in mammals for expressing, e.g. immunoglobulins - comprises homologous recombination using selectable marker and target plasmids.
                      the
                                                                                                                                                                                                                                                                                                                                                                                                                               the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the
                                                                                                     in the
            to
                                                                                                                                                                         in
to
                                                                                                                                                                                                                                                                  ţ
                                                                                                                                                                                                                                                                                                                                       in
to
                                                                                                                                                                                                                                                                                                                                                                                                                     t
t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    i. t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 to
in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         maintain the nucleofide numbering specification for this sequence"
                                                                                                                                                                                                                                                              maintain the nucleotide numbering
specification for this sequence"
..14642
                                                                                                                                                                                                                                                                                                                         from the sequence given in the
specification. They are included
maintain the nucleotide numbering
specification for this sequence"
.15002
                                                                              from the sequence given in the specification. It is included to maintain the nucleotide numbering specification for this sequence.
                                                                                                                                                                                                                                                                                                                                                                                                         from the sequence given in the
specification. They are included
maintain the nucleotide numbering
specification for this sequence"
..15962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      from the sequence given in the specification. They are included maintain the nucleotide numbering specification for this sequence"
          specification. They are included maintain the nucleotide numbering
                                                                                                                                                "these bases represent nucleotides
                                                                                                                                                           from the sequence given in the specification. They are included maintain the nucleotide numbering specification for this sequence"
                                                                                                                                                                                                                               "this base represents a nucleotide
                                                                                                                                                                                                                                          from the sequence given in the specification. It is included to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              They are included
                                 specification for this sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     from the sequence given in the specification. They are include
 from the sequence given in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Reff ME;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16321..16322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US03935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0023715.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97US-0819866.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       McLachlan KR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (IDEC-) IDEC PHARM CORP.
                                                                                                                                                                                                                    /*tag=
/note=
                                                                                                                                                                                                                                                                                                    /*tag=
/note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /*tag=
/note=
                                                        /*tag=
/note=
                                                                                                                                    /*tag=
/note=
                                                                                                                                                                                                                                                                                                                                                                                   /*tag=
/note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note=
                                                                                                                                                                                                        13381
                                                                                                                                                                                                                                                                                        14641
                                                                                                                                                                                                                                                                                                                                                                       15001
                                                                                                                                                                                                                                                                                                                                                                                                                                                      15961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1998-521229/44.
                                                                                                                         misc_feature
                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9841645-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-MAR-1997;
                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Barnett RS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   34-SEP-1998
```

```
beta-glucuronidase (GUS) gence, firefly luciferase gene, an inactivated Salmonella typhimurium histidinol dehydrogenase (HisD) gene and transposon Tno neomycin phosphorransferase (neo) gene and transposon Tno neovel method for integrating a desired exognecus DNA at a target site within the genome of a manmalian cell with a "marker plasmid' such as Desmond (see Aav61792), which contains a unique sequence that is foreign to the mammalian cell with a marker plasmid, such as Desmond (see Aav61792), which contains a unique sequence that is foreign to the mammalian cell genome and which provides a substrate for homologous recombination with a 'target plasmid', such as Manny or Molly (see Aav61793), containing a sequence which provides for homologous recombination with the unique sequences contained in the marker plasmid, and further comprising a desired DNA that is to be integrated into the mammalian cells, typically an immunoglobulin or other secreted mammalian glycoprotein. The homologous recombination system utilises the neo gene as a dominant selectable marker. The neo gene is split into 3 exons.

Exon 3 is present on the marker plasmid and becomes integrated into the mammalian cells. Exons I and 2 are present on the cargeting plasmid, and are separated by an intron into which at targeting plasmid, and are separated by an intron into which at least one gene of integrated marking vector results in correct splicing of all 3 exons of the neo gene and expression of the targeting of an health of express any type of recombinant mammalian cells. The method is applicable to all and an express any type of recombinant the mammalian cells. The method is applicable to all and can be an express any type of recombinant the mammalian cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9489 GAGGTGCAGCTGGTGGAGCTCTGGGGGGGGGCTTGGCAAAGCCTGGGGGGTCCCTGAGACTC 9548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9783 GCGAGCTTGACTACAGGGTCTGACTCCTGGGGCCAGGGAGTCCTGGTCACCGTCTCCTCA 9842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    115 CAGGCTCCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTAT 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    175 GCAACACATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAA 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 TCCTGTGCAGCTAGCG-----GATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGC 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mammalian cells, and can be used to express any type of recombinant protein. The use of a triply spliced selectable marker means that all selected colonies arise from homologous recombination. In addition, the number of colonies that need to be screened to identify high producer clones is reduced. An amplifiable gene can be inserted on integration of the marking vector, so that when a gene is targeted to this site, the gene is further enhanced by gene
                                                                                                                                                                                                               The plasmid includes an inactivated murine dihydrofolate reductase (PIRFN) gene, the Escherichia coli beta-galactosidase gene, baculovirus DNA, a cassette comprising the promoter and enhancer elements from cytomegalovirus and 8V40 virus, the E. coli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9609 CAGGCTCCAGGGCAGGGGCTGGAGTGGGTCTCACGTATTAG-----TAGTAGTGGTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGGTGCAGCTGGAGTCTGGGGAGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            235 TCTAGACTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----TACAGATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1142.2; DB 19; Length 19035;
Pred. No. 1.5e-213;
0; Mismatches 83; Indels 24; G
                                                                                                                                                       This is the nucleotide sequence of novel target plasmid Mandy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 19035 BP; 4705 A; 4968 C; 4822 G; 4519 T; 21 other;
Example 1; Fig 10; 114pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             85.6%;
92.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             amplification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 1246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
\overset{\times}{\times} \overset{\times}{\circ} \overset{\circ}{\circ} \overset{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ρp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δy
```

ä

g

/\*tag= b . /note= "alters codon TCA (Ser) to GCA (Ala)"

Location/Qualifiers 13..1419 /\*tag= a 250

sapiens.

RW; Sweet

Porter TG,

Dillon SB,

97WO-US19203. 96US-0030149

(first entry)

```
Monoclonal antibody; human; Hu19C; engineered antibody; RSV; respiratory syncytial virus; complementarity determining region; CDR; infection; immunotherapy; therapy; dlagnosis; Hu19CHcpcd; s:
                                                                                    Plasmid Hu19CHcpcd encoding anti-RSV F protein Hu19C heavy chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Monoclonal antibodies reactive with Respiratory Syncytial Virus useful for detection, prevention and treatment of RSV infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P-PSDB; AAW59625, AAW59628 and AAW59631.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (SMIK ) SMITHKLINE BEECHAM CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1998-286600/25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                             WO9819704-A1
                                            12-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-MAY-1998
                                                                                                                                                                                                                                Synthetic
      AAV41431;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Deen KC,
                                                                                                                                                                                                                                                                                                                                 mutation
                                                                                                                                                                                                             Homo
                                                                                                                                                                                                                                                                      Key
      NAME OF THE PROPERTY OF THE PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δŏ
                                                                                                                                                                                 10142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10743 CAGCAGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACACCACTACCACG 10802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1122
                                                                                                 9903 GGCACAGCGCCCTGGCTGCCTGGTCAAGGACTACCCCCGAACCGGTGACGGTGTCG 9962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1002
                                                                                                                                                                522
                                                                                                                                                                                                                                                582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 942
    402
                                                                                  462
                                                                                                                                                                                                                                                                                                                             642
                                                                                                                                                                                                                                                                                                                                                                                                           702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTCCTCCAAGAGCACCTCTGGG
                   GGCACAGGGGCCTGGTCGTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCG
                                                                                                                                                              TGGAACTCAGGCGCCCTGACCAGCGGCGTGCACCTTCCCGGCTGTCCTACAGTCCTCA
                                                                                                                                                                                                                                            GGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACC
                                                                                                                                                                                                                                                                                                                        TACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAAGTGGAGCCC
                                                                                                                                                                                                                                                                                                                                                10083 TACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAAGTTGAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                      AAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCACCTGAACTCGCGGGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10203 CCGTCAGTCTTCCTCTTCCCCCCAAACCCAAGGACACCCTCATGATCTCCCCGGACCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAGCCAAAGGCCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10563 CTGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTATCCCAGCGACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1123 GCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               763 GAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGACCAAGAACCAGGTCAGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1183 CTGGACTCCGACGGCTCCTTCTTCCTACAGCAAGCTCACCGTGGACAAGAGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1243 CAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10803 CAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 10835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1303 CAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                    8966
                                                                                                                                                                                                                                            523
                                                                                                                                                                                                                                                                                                                                                                                                      643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1063
343
                                                                                                                                                                                                                                                                                                                          583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10383
                                                                                403
                                                                                                                                                            463
                                                                                                                                                                                                                                                                                  10023
                                                                                                                                                                                                                                                                                                                                                                                                                                             10143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1003
                                   QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
õ
                                                                                                                  q
                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                            ò
                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

```
coding region for anti-respiratory syncytial virus (RSV) fusion

(F) protein human monoclonal antibody (MAD) Hu19C heavy chain (see also AAM59617). Hu19Ctopen (see AAV41433) encoding the Hu19C light chain is also provided. These vectors were used to produce Hu19C in transfected COS and CHO cells. Hu19A, Hu19B, Hu19C and Hu19D MADS are claimed. These are reshaped human antibodies comprising a heavy chain selected from 19A, 19B, 19C or 19D (see AAM59615-18), and a light chain selected from 19A, 19B, 19C or 19D (see AAM59615-18). These are neutralising engineered antibodies that inhibit virus growth in viro and in vivo in animal models of RSV infection. They can be used in the detection, prevention and passive immunotherapy of RSV infection. Nucleic acids encoding the human MaDs, recombinant plasmids (see AAV41427-33) and host cells are provided.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGTGTGCAGCCTCTGGAACCACCCTCAGTGGCTATACCATGCACTGGGTCCGCCAGGCTC 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTGTGCGCCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACAC 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 AGGTGCAGCTGGTGGAGTCTGGGGAGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTCT
                                                            This is the DNA sequence of plasmid Hul9CHcpcd, which includes a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1141.8; DB 19; Length 1427;
Pred. No. 1.4e-213;
0; Mismatches 87; Indels 27; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1427 BP; 325 A; 461 C; 383 G; 258 T; 0 other;
Example C; Fig 4E; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            85.5%;
91.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Sim
Matches 1241;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δy
```

ä

AAV41431 standard; DNA; 1427

RESULT 12 AAV41431 ID AAV4 XX 1241

Qγ

```
AGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCATCT 1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATG 1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1324
                     304
                                                                                           424
                                                                                                          CAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCTCCTCCAAGAGCACCTCTG 400
                                                                                                                                              GGGGCACAGGGGCCCTGGCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGT 460
                                                                                                                                                                                     520
                                                                                                                                                                                                                     CAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCTCCAGCAGCTTGGGCACCCAGA 580
                                                                                                                                                                                                                                                              640
                                                                                                                                                                                                                                                                                                                                CACCGICAGICITCCICITCCCCCCAAAACCCAAGGACACCCICAIGAICICCCGGACCC 760
                                                                                                                                                                                                                                                                                                                                                                                                      GGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGGAGCAGTACA 880
                                                                                                                                484
                                                                                                                                                                                                       604
                                                                                                                                                                                                                                                                    700
                                                                                                                                                                                                                                                                                                                                                                      820
                                                                                                                                                                                                                                                                                                                                                                             ACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCA 940
                                                                                                                                                                                                                                 784
                                                                                                                                                                                                                                                                                                                                                                                                                182 ATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC
          365 CCCCTATAGCACCGCCTACTTGACCACGGGCCAGGGAACCCTGGTCACCGTCCT
                                                                                                                    ---ACAGATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCCT
                                                                                                                                                                                 CGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGTCCT
                                                                                                                                                                                                                                                         CCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAAGTGGAGC
                                                                                                                                                                                                                                                                                             GACCGTCATCTCCCCCCAAAACCCAAGACCCTCATGATCTCCCGGACCC
                                                                                                                                                                                                                                                                                                                                                                  CTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCTGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTATCCCAGCGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCGCCGTGGAGTGGGAAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGACAAGAGCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGGCCGTGTATTACTGT
                 245
                                   242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1085
                                                    305
                                                                       295
                                                                                                                                                                                                                                                                                                                                                                                                                        905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1265
                                                                                                                                               401
                                                                                                                                                                                  461
                                                                                                                                                                                                    545
                                                                                                                                                                                                                      521
                                                                                                                                                                                                                                        605
                                                                                                                                                                                                                                                          581
                                                                                                                                                                                                                                                                            665
                                                                                                                                                                                                                                                                                                               725
                                                                                                                                                                                                                                                                                                                                 701
                                                                                                                                                                                                                                                                                                                                                  785
                                                                                                                                                                                                                                                                                                                                                                   761
                                                                                                                                                                                                                                                                                                                                                                                     845
                                                                                                                                                                                                                                                                                                                                                                                                                                                            965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1181
                                                                                                                                                                                                                                                                                                                                                                                                       821
                                                                                                                                                                                                                                                                                                                                                                                                                                           881
δ
                 g
                                   οχ
                                                   g
                                                                       δ
                                                                                       g
                                                                                                          ò
                                                                                                                         QQ
                                                                                                                                              δý
                                                                                                                                                               qq
                                                                                                                                                                                                 g
                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                         QQ
                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                δy
                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                              Ω
                                                                                                                                                                                                                                                                                                                                                                  οy
                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                       óλ
                                                                                                                                                                                                                                                                                                                                                                                                                      Q
                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          οp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ολ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qγ
```

```
This is the DNA sequence of plasmid Hul9DHcpcd, which includes a coding region for anti-respiratory syncytial virus (RSV) fusion (F) protein human monoclonal antibody (MAb) Hul9D heavy chain (see also AAM59618). Hul9CLcpcn (see AAV41433) encoding the Hul9C light chain is also provided. These vectors were used to produce Hul9C in transfected COS and CHO cells. Hul9A, Hul9B, Hul9C and Hul9D. Mabs are claimed. These are reshaped human antibodies comprising a heavy chain selected from 19A, 19B, 19C or 19D (see AAM59615-18), and a light chain selected from 19A, 19B, 19C or 19D (see AAM59610-11). These are neutralising engineered antibodies that inhibit virus growth in vitro and in vivo in animal models of RSV infection. They can be used in the detection, prevention and passive immunotherapy of RSV infection. Nucleic acids encoding the human whas, recombinant plasmids (see AAV41427-33) and host cells are
Monoclonal antibody; human; Hu19D; engineered antibody; RSV, respiratory syncytial virus; complementarity determining region; CDR; infection; immunotherapy; therapy; diagnosis; Hu19DHcpcd; ss.
                                                                                                                                                                                                                                 Plasmid Hu19DHcpcd encoding anti-RSV F protein Hu19D heavy chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Monocional antibodies reactive with Respiratory Syncytial Virus useful for detection, prevention and treatment of RSV infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GJu),
                                                                                                                                                                                                                                                                                                                                                                                                                                  (Glu)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAA
                                                                                                                                                                                                                                                                                                                                                                                                                                   CAA
                                                                                                                                                                                                                                                                                                                                                                                                                                  to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (Asn) to
                                                                                                                                                                                                                                                                                                                                                                                                                                  codon AAC (Asn)
                                                     CGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                     Sweet RW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           /*tag= c.
/note= "alters codon AAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1998-286600/25.
P-PSDB; AAW59625, AAW59628 and AAW59632.
                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
13..1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example C; Fig 4F; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Porter TG,
                                                                                                                                                     BP.
                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag= b
/note= "alters c
246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (SMIK ) SMITHKLINE BEECHAM CORP.
                                                                                                                                                  AAV41432 standard; DNA; 1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96US-0030149.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97WO-US19203
                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                           æ
                                                                                                                                                                                                                                                                                                                                                                                     /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Deen KC, Dillon SB,
                                                                                                                                                                                                                                                                                                                      sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-OCT-1997;
                                                                                                                                                                                                        12-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9819704-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-MAY-1998
                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                              AAV41432;
                                                                                                                                                                                                                                                                                                                                                                                                      mutation
                                                                                                                                                                                                                                                                                                                                                                                                                                              mutation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       provided
                          1325
                                                     1301
                                                                              1385
                                                                                                                          RESULT 13
                                                                                                                                                                                                                                                                                                                                                                         CDS
                                                                                                                                    AAV41432
                                                                                                                                                              Db
                                                    δŻ
                                                                             qq
```

Sequence 1427 BP; 325 A; 461 C; 382 G; 259 T; 0 other;

```
2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       880
                                                                                                                                                                                                                                                                 400
                                                                                                                                                                                                                                                                                                       460
                                                                                                                                                                                                                                                                                                                                           520
                                                                                                                                                                                                                                                                                                                                                                               580
                                                                                                                                                                                                                                                                                                                                                                                                                     640
                                                                                                                                                                                                                                                                                                                                                                                                                                                         700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 844
                                                                                                                                                                                                                                                                                    484
                                                                                                                                                                                                                                                                                                                          544
                                                                                                                                                                                                                                                                                                                                                                                                  664
                                                                                                                                                                                                                                                                                                                                                                                                                                      724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            784
                                                CGTGTGCAGCCTCTGGAACCACCCTCAGTGGCTATACCATGCACTGGGTCCGCCAGGCTC 190
                                                                                                               181
                                                                                                                                                    241
                                                                                                                                                                      304
                                                                                                                                                                                        294
                                                                                                                                                                                                          364
                                                                                                                                                                                                                                              424
                                                                                                                                                                                                                                                                                                                                                            604
                                                                           CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC 121
                   Gaps
                                     61
                                                                                                                                                                                                                                       CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGAATTGAAATCTGATAATTATGCAACAC
                                                                                                                          CTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAAGCCGCGGGAGGAGCAGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAAGCCGCGGGAGGAGCAGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCATCT
                                                                                                                                                     ATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC
                                                                                                                                                                                       TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCGGTGTATTACTGT------
                                                                                                                                                                                                                                                                   CAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCTCCTCCAAGAGCACCTCTG
                                                                                                                                                                                                                                                                                                        GGGGCACAGCGGCCCTGGGCTGGCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGT
                                                                                                                                                                                                                                                                                                                  GGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACCGTGT
                                                                                                                                                                                                                                                                                                                                             CGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAAATCTTGTGACAAAACTCAÇACATGCCCACCGTGCCCAGCACCTGAACTCGCGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACCGTCAGTCTTCCTCCTTCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAGCACGTACCGTGTGGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCA
                                                                                                                                                                                                                             -----ACAGATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCCT
                                      AGGTGCAGCTGGTGGAGTCTGGGGGGGGGCTTGGTAAAGCCCGGGGGGGTCCCTTAGACTCT
 Length 1427
                   Indels
 19;
                  87;
Score 1141.8; DB 1:
Pred. No. 1.4e-213;
); Mismatches 87;
                  0;
85.5%;
llarity 91.6%;
Conservative
           Similarity
           Best Local Sim
Matches 1241;
  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                       999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         905
                                                                                                                                                                                                                                                                                                                                                                                                  605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1025
                                      N
                                                       71
                                                                                             131
                                                                                                                                                     182
                                                                                                                                                                      245
                                                                                                                                                                                        242
                                                                                                                                                                                                                             295
                                                                                                                                                                                                                                                                                    125
                                                                                                                                                                                                                                                                                                                          485
                                                                                                                                                                                                                                                                                                                                             461
                                                                                                                                                                                                                                                                                                                                                             545
                                                                                                                                                                                                                                                                                                                                                                                521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        821
                                                                           62
                                                                                                                122
                                                                                                                                  191
                                                                                                                                                                                                                                                                  341
                                                                                                                                                                                                                                                                                                        101
                                                                                                                                                                                                                                                                                                                                                                                                                     581
                                                                                                                                                                                                                                                                                                                                                                                                                                                           641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               701
                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             рp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                      qq
                                                                                             q
                                                                                                                                 g
                                                                                                                                                    ò
                                                                                                                                                                     g
                                                                                                                                                                                       ò
                                                                                                                                                                                                         QQ
                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                            ογ
                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                      ò
                                                                           ò
                                                                                                               ò
```

```
1324
                                                                                                                                                                                            GGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACA 1300
                                                                                                                                                                                                       CCAAAGCCAAAAGGCCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATG 1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This is the DNA sequence of plasmid HulyBhcpcu, which cooling region for anti-respiratory syncytial virus (RSV) fusion (F) protein human monoclonal antibody (MAD) Hul9B heavy chain (see also AAW59616). Hul9BLcpcn (see AAV41430) encoding the Hul9B light chain is also provided. These vectors were used to produce Hul9B in transfected COS and CHO cells. Hul9A, Hul9B, Hul9C and Hul9D MADs are claimed. These are reshaped human antibodies comprising a heavy chain selected from 19A, 19B, 19C or 19D (see AAW59615-18), at
                                                                                            TGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGACAAGAGCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                          Monoclonal antibody; human; Hu19B; engineered antibody; RSV; respiratory syncytial virus; complementarity determining region; CDR; infection; immunotherapy; therapy; diagnosis; Hu19BHcpcd; ss.
                                               AGCTGACCAAGAACCAGGTCAGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACA
                                                           Plasmid Hu19BHcpcd encoding anti-RSV F protein Hu19B heavy chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Respiratory Syncytial Virus
                                                                                                                                                                                                                                                      CGCAGAAGACCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sweet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           prevention and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Monoclonal antibodies reactive with useful for detection, prevention and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
13..1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example B; Fig 4C; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Porter TG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (SMIK ) SMITHKLINE BEECHAM CORP
                                                                                                                                                                                                                                                                                                                             вР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1998-286600/25.
P-PSDB; AAW59625 and AAW59628.
                                                                                                                                                                                                                                                                                                                             DNA; 1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96US-0030149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97WO-US19203
                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Deen KC, Dillon SB,
                                                                                                                                                                                                                                                                                                                             AAV41429 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9819704-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                            12-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-MAY-1998
                                                                                                                                                                                                                                                                                                                                                      AAV41429;
  1001
                         1085
                                                1061
                                                                       1145
                                                                                               1121
                                                                                                                      1205
                                                                                                                                              1181
                                                                                                                                                                     1265
                                                                                                                                                                                             1241
                                                                                                                                                                                                                    1325
                                                                                                                                                                                                                                            1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ношо
                                                                                                                                                                                                                                                                                                       RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Key
                                                                                                                                                                                                                                                                                                                 AAV41429
                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                    g
                      qq
                                                                     g
                                                                                                                     g.
                                               οy
                                                                                               ò
                                                                                                                                               ŏ
                                                                                                                                                                                             Qγ
                                                                                                                                                                                                                                           δý
```

```
2;
                                                                                                                                                                                                                                                                                                                                                                                                                              424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                460
                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                      304
                                                                                                                                                                                                                                                                                                                                                             294
                                                                                                                                                                                                                                                                                                                                                                                                          340
                                                                                                                                                                                                                                                                                                                                                                                                                                                     400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   700
                                                                                                                                                                                                                                                                                                                                                                                   364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          880
                                                                                                                                                                                                                   CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC 121
                                                                                                                                                                                                                                                                 CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACAC 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                964
                                                                                                                                                    Gaps
                                                                                                                                                                         61
a light chain selected from 19A, 19B, 19C or 19D (see AAW59620-21. These are neutralising engineered antibodies that inhibit virus growth in vitro and in vivo in animal models of RSV infection. They can be used in the detection, prevention and passive immunotherapy of RSV infection. Nucleic acids encoding the human MADs, recombinant plasmids (see AAV41427-33) and host cells are provided.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            191 CAGGGAAGGGGCTGGAGTGGGTCTCATCCATT-----ACTGGAGGTAGCAACTTCATAA
                                                                                                                                                                                                                                                                                                                                                                      CCCCTATAGCACCGCCTACTTTGACCACTGGGGCCAGGGAACCCTGGTCACCGTCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGGCACAGCGGCCCTGGGCTGCTGGTCAAGGACTACTTCCCCCGAACCGGTGACGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 AGGIGCAGCIGGAGICIGGGGAGGCITGGIAAAGCCCGGGGGGGICCCITAGACICI
                                                                                                                                                                                                                                                                                                              ATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC
                                                                                                                                                                                                                                                                                                                                   ACTACTCAGACTCAGTGAAGGGCCGATTCACCATCTCCAGAGACAACGCCAAGAACTCAC
                                                                                                                                                                                                                                                                                                                                                                                                       ---ACAGATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTCCTCCAAGAGCACCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGCACAGGGCCCTGGCTGCTGAAGGACTACTTCCCCGAACCGGTGACCGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAAGTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAAATCTTGTGACAAAACTCACACGTGCCCAGCCCCAGCACCTGAACTCGCGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGAGGTCACATGCGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACT
                                                                                                                            DB 19; Length 1427;
                                                                                                                                                  27;
                                                                                                                                                                                                                                                                                                                                                         TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGT
                                                                                                                                                   Indels
                                                                                                    Sequence 1427 BP; 325 A; 461 C; 382 G; 259 T; 0 other;
                                                                                                                           Score 1140.2; DB 19
Pred. No. 2.9e-213;
0; Mismatches 88;
                                                                                                                           85.4%;
91.5%;
                                                                                                                                     Best_Local Similarity 91.5
Matches 1240; Conservative
                                                                                                                           Query Match
                                                                                                                                                                                             71
                                                                                                                                                                                                                                                                                                                                                                                                                            365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               845
                                                                                                                                                                                                                   62
                                                                                                                                                                                                                                         131
                                                                                                                                                                                                                                                                                                             182
                                                                                                                                                                                                                                                                                                                                   245
                                                                                                                                                                                                                                                                                                                                                         242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            605
                                                                                                                                                                                                                                                                 122
                                                                                                                                                                                                                                                                                                                                                                                305
                                                                                                                                                                                                                                                                                                                                                                                                     295
                                                                                                                                                                                                                                                                                                                                                                                                                                                  341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      821
                                                                                                                                                                                           g
             22222222X8
                                                                                                                                                                      à
                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                             Db
                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                         QQ
                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                            ζ
                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                    QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
```

```
disorder;
                                                                                        1060
                                                                                                                                                                             1180
                                                                                                                                                                                                                        1240
ACAGCACGTACCGTGTGGTCAGCGTCCTACCGTCCTGCACCAGGACTGGCTGAATGGCA 940
                                                                                                  AGCTGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTATCCCAGCGACA 1120
                                                                                                                                            GGCAGCAGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACA 1300
                                                                                                                                                                                                                                                                         1325 GCCAGCAGGGAACGTCTTCTCATGCTCGTGATGAGGCTCTGCACACACCACTACA 1384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         e.g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to the isolation of novel cDNA sequences which encode human secreted proteins. The cDNA sequences have been
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human secreted protein; hyperproliferative disorder; autoimmune disimmune deficiency disorder; blood disorder; inflammatory disorder; infectious disorder; gene therapy; antimicrobial; hepatotropic;
                                                                                      CCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        treating
                                                                                                                                                                                     AGGAGTACAAGTCTCCAACAAGCCCTCCCAGCCCTCGAGAAAACCATCT
                                                                                                                                                                                                                     TGCTGGACTCCGACGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGACAAGAGCAGGT
                                                                                                                                                                                                                                 TCGCCGTGGAGTGGGAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Resnick
                                                       for
                                                                                                                                                                                                                                                                                                                                                                                                                                                   cDNA sequence #571 encoding novel human secreted protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Howes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        proteins
                                                                                                                                                                                                                                                                                                                      1385 CGCAGAAGACCTCTCCTGTCTCCGGGTAAATGA 1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MJ,
                                                                                                                                                                                                                                                                                                           CGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Agostino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         immunosuppressive; antirheumatic; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Člaim 1; Page 363; 391pp; English.
                                                                                                                                                                                                                                                                                                                                                                                      BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 χ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   polynucleotides encoding secuma, HIV and Crohn's disease
                                                                                                                                                                                                                                                                                                                                                                                     AAS62784 standard; cDNA; 1617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fechtel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-MAR-2001; 2001WO-US10485.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-195604P
                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GEMY ) GENETICS INST INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Clark HF,
K, Graham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-010900/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200177291-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-APR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                               14-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wong GG,
Gulukota P
                                                                                                                                                                                                                                                                                                                                                                                                          AAS62784;
                                                                1025
                                                                                                                                                     1145
                                                                                                                                                                                               1205
                                                                                                                                                                                                                                                                1241
                     965
                                                                                      1001
                                                                                                          1085
                                                                                                                                1061
                                                                                                                                                                           1121
                                                                                                                                                                                                                     1181
                                                                                                                                                                                                                                                                                                          1301
  881
                                           941
                                                                                                                                                                                                                                                                                                                                                                15
                                                                                                                                                                                                                                                                                                                                                               RESULT 1
AAS62784
                  QΩ
                                          Qy
                                                               Db
                                                                                   οy
                                                                                                      qq
                                                                                                                               QΥ
                                                                                                                                                g
                                                                                                                                                                      Qγ
                                                                                                                                                                                            Db
                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                          οy
                                                                                                                                                                                                                                                                                                                             QQ
                                                                                                                                                                                                                                                                                                                                                                                               Ω
                                                                                                                                                                                                                                                               ÓΥ
```

ACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCCACGAAGACCCTGAGGTCAAGTTC

757

Q

18

```
5
derived from a variety of human tissues. The invention also provides a method for producing proteins from these polynuclectide sequences. The proteins are useful for identifying compounds that modulate their activity and production, and the cell is also useful for identifying compounds that modulate expression of the polynuclectide sequences compounds that modulate expression of the polynuclectide sequences compounds that modulate expression of the polynuclectide sequences compounds that modulate expression of the polynuclective disorders (e.g. severe combined immunodeficiency (SCID)), autoimmune disorders (e.g. severe combined immunodeficiency (SCID)), autoimmune disorders (e.g. thrombocytopaenia), inflammatory colisorders (e.g. thrombocytopaenia), inflammatory alsorders (e.g. arthritis) and infectious disorders (e.g. hepatitis). The polynuclectide sequences of the invention are also useful in gene invention that encode for novel human secreted proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GAGGTGCAGCTGGTGGAGTCTGGGGGGGGGGTTGGTAAAGCCCCGGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1136.6; DB 24; Length 1617;
Pred. No. 1.5e-212;
0; Mismatches 89; Indels 30; C
                                                                                                                                                                                                                                                                                                                                                       Sequence 1617 BP; 375 A; 507 C; 437 G; 298 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                    85.1%;
91.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Sim
Màtches 1240;
                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
```

g

oy be oy

GGGGGACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGG

837

q

ò

```
1176
                                                                                                       1076
                                               TACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAAT
                                                                                                                                                                                         CCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTATAGCAAGCTCACCGTGGACAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                  ATCTCCAAAGCCAAAGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGG
                                                                                                                                                                                                                            GATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTATCCCAGC
                                                                                                                                                                                                                                         CCCGTGCTGGACTCCGACGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGACAAGAGC
                                                                                                                                                                                                                                                                                                                                                                      AGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGGACAACCAC
AACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAG
                                                                                 TACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAAT
                                                                                                                               GGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAAGCCCTCCCAGCCCCCATCGAGAAAACC
                                                                                                                                                                                                                                                                         GACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                TACACGCAGAAGACCTCTCCCTGTCCCCGGGTAAATGA 1475
                                                                                                                                                                                                                                                                                                                                                                                                                    TACACGCAGAGAGGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05:06:15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2003,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         April 26, 2
secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             completed:
e : 294.58
                                                                                                                                                                                                                                                                                                                                                                                             1377
                                                                                                                                                                                                                                                                                                                                                                                                                                          1437
                                                                                                        1017
                                                                                                                                                      1077
                                                                                                                                                                                                      1137
                                                                                                                                                                                                                            1057
                                                                                                                                                                                                                                                                           1117
                                                                                                                                                                                                                                                                                                 1257
                                                                                                                                                                                                                                                                                                                         1177
                                                                                                                                                                                                                                                                                                                                               1317
                                                                                                                                                                                                                                                                                                                                                                      1237
                                                                                                                                                                                                                                                                                                                                                                                                                     1297
            897
                                  817
                                                          957
                                                                                  877
                                                                                                                                937
                                                                                                                                                                              997
                                                                                                                                                                                                                                                    1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Search co
                                                                                                                                                                                                                                                                                                                                               g
           qq
                                                                                                       g
                                                                                                                                                     g
                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                            g
                                    ò
                                                         dd
                                                                                  ò
                                                                                                                                 ò
                                                                                                                                                                              δ
                                                                                                                                                                                                                            οy
                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                         ò
```

240 356

CCAGGGAAGGGGCTGGATTCATACATCAGTCAGA-----CTGGTCTTGTCATC

243

181

GIGTATCTGCAAATGCACAGCCTGAGAGCCGACGACGACGACGACGTTCTGTGCGAGAAA

357

241 CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC----

CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA

```
Sequence 54, Appl Sequence 114, App Sequence 50, Appl Sequence 59, Appl Sequence 60, Appl Sequence 67, Appl Sequence 57, Appl Sequence 68, Appl Sequence 68, Appl Sequence 68, Appl Sequence 67, Appl Sequence 68, Appl Sequence 70, Appl Sequence 50, Appl Sequence 51, Appl Sequence 104, Appl Sequence 1, Appl Sequence 2, Appl Sequence 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1798;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 230, Application US/09925299
Sequence 230, Application US/09925299
Publication No. US20030040617A9
GENERAL INFORMATION:
APPLICANT: Rosen et al.
TILLE OF INVENTION:
CURRENT APPLICATION NUCLEIC ACIDS, Proteins and Antibodies
FILE REFERENCE: PA102
CURRENT APPLICATION NUMBER: US/09/925,299
CURRENT FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: PCT/USO0/05883
PRIOR RILING DATE: 2000-03-08
PRIOR APPLICATION NUMBER: 60/124,270
PRIOR APPLICATION NUMBER: 60/124,270
NUMBER OF SEQ ID NOS: 1556
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 230
LENGTH: 1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6
US-09-825-012-54

US-09-825-012-50

US-09-825-012-50

US-09-825-012-50

US-09-825-012-50

US-09-825-012-60

US-09-825-012-47

US-09-825-012-48

US-09-825-012-48

US-09-825-012-56

US-09-825-012-56

US-09-825-012-57

US-09-825-012-57

US-09-825-012-57

US-09-826-288-8

US-09-827-84-111

US-09-822-849A-111

US-09-822-849A-311

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 86.0%; Score 1147.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     υ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ပ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ų
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION: (1)
OTHER INFORMATION: n equals a,t,g, or NAME/KEY: misc_feature
LOCATION: (15)
OTHER INFORMATION: n equals a,t,g, or NAME/KEY: misc_feature
LOCATION: (24)
OTHER INFORMATION: n equals a,t,g, or NAME/KEY: misc_feature
LOCATION: (31)
LOCATION: (31)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: (501)
COTHER INFORMATION: n equals a,t,g,
NAME/KEY: misc_feature
COATION: (1798)
COTHER INFORMATION: n equals a,t,g,
US-09-925-299-230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: n equals a,t,g,
NAME/KEY: misc_feature
LOCATION: (501)
       2226
1590
22190
22190
22220
22220
2223
33300
33300
34120
9183
                                                                                                                                                                                                                                                                                                                                                                                                                  1576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: misc_feature
       1102.2
1100
1100
11096.6
11096.6
11095.8
11095.8
11095.8
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082.6
11082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1064.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1061.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
         Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 25, Appl
Sequence 27, Appl
Sequence 27, Appl
Sequence 571, Appl
Sequence 27, Appl
Sequence 14, Appl
Sequence 14, Appl
Sequence 10, Appl
Sequence 10, Appl
Sequence 10, Appl
Sequence 10, Appl
Sequence 47, Appl
Sequence 48, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 230, App
Sequence 230, App
Sequence 7, Appli
Sequence 4, Appli
Sequence 4, Appli
Sequence 4, Appli
                                                                                                                                                              April 26, 2003, 07:27:07; search time 129.024 Seconds (without alignments) 11258.801 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                       Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*

cgn2_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*

cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*

cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*

cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*

cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*

cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*

cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*

cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*

cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*

cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*

cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*

cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*

cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*

cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*

cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*

cgn2_6/ptodata/1/pubpna/US00_NEW_PUB.seq:*

cgn2_6/ptodata/1/pubpna/US00_NEW_PUB.seq:*
                             GenCore version 5.1.4_p5_4578
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-925-299-230
US-09-925-299-230
US-10-124-905-7
US-09-94B-429B-7
US-10-073-13B-4
US-10-06-895-25
US-10-066-895-25
US-10-066-895-25
US-10-066-895-25
US-10-066-895-25
US-10-066-895-27
US-09-736-371B-20
US-09-736-371B-20
US-09-927-122-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-822-849A-103
US-09-825-012-10
US-09-825-012-44
US-09-825-012-45
US-09-825-012-53
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                  709820 seqs, 544064369 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Published_Applications_NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                         OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                IDENTITY_NUC Gapoxt 1.0
                                                                                                                                                                                                                                              US-09-674-716B-18
1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1437
1616
1427
1427
1617
1347
1356
6284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         85.1
885.0
884.7
884.6
882.8
882.8
882.6
882.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   യയയസ്
                                                                                                                                                                                                                                                           Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1147.8
1147.8
11147.2
11147.2
1145.1
1141.8
1141.8
1140.2
1136.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1128.8
1121.4
1105.2
1104.8
1102.2
1102.2
                                                                                                                                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                       Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Database
                                                                                                                                                                        Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ño.
```

O

```
GAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCC 1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCIGIGCAGCIAGCGGATICACTITCAGIGGCIACTGGAIGICCIGGGICCGCCAGGCTC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          υ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: (1)
OTHER INFORMATION: n equals a,t,g, or MAME/KET: misc_feature
LOCATION: (15)
OTHER INFORMATION: n equals a,t,g, or NAME/KEY: misc_feature
LOCATION: (24)
OTHER INFORMATION: n equals a,t,g, or NAME/KEY: misc_feature
LOCATION: (31)
OTHER INFORMATION: n equals a,t,g, or NAME/KEY: misc_feature
LOCATION: (31)
OTHER INFORMATION: n equals a,t,g, or NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US/09925299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: n equals a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 230, Application Patent No. US20020055627A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: misc_feature
LOCATION: (1798)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION: (501)
OTHER INFORMATION: n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 1245; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; US-09-925-299-230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-925-299-230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                a
                                                                                                                                                                                      QQ
                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                      οy
                                                                                                                                             QΥ
                                                                                                                                                                                                                                     ò
                                 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGAAAACCATCTCCAAAGCCAAAGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCC 1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            980 ATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCCACGAAGACCCTGAG 1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            688 GAACTCGGGGGGCACCGTCAGTCTTCCTTCCCCCAAACCCAAGGACACCTCATG 747 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111 | 11111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    266 CCTGTGCAGCSTCTGGATTCACCTTCAGTAGCTATGGCATGCACTGGGTCCGCCAGGCTC 325
                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                              327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGAGCACCICIGGGGGCACAGCGGCCCTGGCTGGTCAAGGACTACTTCCCCGAA 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    628 AAGAAAGIGGAGCCCAAAICIIGIGACAAAACICACACAIGCCCACGIGCCCAGCACCI 687
                                                                                                     181
                                                                                                                                                                                                                                                                                                  326 CAGGCAAGGGGCTGGAGTGGGTGCAGTTATATS-----RTATGATGGAAGTAATAAT 379
                                                                                                                                                                     CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC 121
                                                                              61
                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCAAGTTCAACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11g0 TGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAGCCTCCCAGCCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     748 ATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              928 TGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATC
                                                                                                                                                                                                                                                                                                                                                                              TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACAGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ------AGACTGGGGCCAGGGAACACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCACCGTCTCCTCAGCCTCCACCAACGGCCCATCGGTCTTCCCCCTGGCACCCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        740 GTCCTACAGACTCTCAGGACTCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGAATTTGAAATCTGATAATTATGCAACAC
                                                                                                                                                                                                                                                                                                                                                  ATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         500 ANGTTACTATGGTTCGGAAAGCATCTACTACTTTGACTCTGGGGCCAGGGAACMCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCACCGTCTCCTCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCTCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCCTACAGACTCTACTCCTCAGCACCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGC
                                                                              2 AGGIGCAGCIGGIGGAGICIGGGGAGGCIIGGIAAAGCCCGGGGGGICCCIIAGACTCI
                                     40;
                                     Indels
4e-311;
73;
                                   Mismatches
                  .
9
                  Pred.
                                     10;
                  91.0%;
                                          Conservative
                Best Local Similarity
Matches 1245; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   302 TCAT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        988
                                                                                                                               206
                                                                                                                                                                                                                                                                                                                                                                                                 380
                                                                                                                                                                                                                                                                                                                                                                                                                                              242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    568
                                                                                                                                                                                                                                                               122
                                                                                                                                                                                                                                                                                                                                                      182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             328
                                                                                                                                                                          62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Оp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                               q
                                                                                                                                                                            ò
                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                      à
                                                                                     à
```

1227 1519 1167 1287 Gaps 2 AGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTCT 1168 ACCACGCCTCCCGTGCTGGACTCCGACGCTCCTTCTTCCTCTACAGCAAGCTCACCGTG 1400 ACCAGGCTCCGGTGCTGGACTCCGACGGCTCCTTCTTCCTCTAYAGCAAGCTCACGTG 1228 GACAAGAGCAGGIGGCAGCAGGGGAACGICTICTCATGCICCGIGATGCATGAGGCTCTG DB 10; Length 1798; 40; and Antibodies 73; ed. No. 4e-311; Mismatches TITLE OF INVENTION: Nucleic Acids, Proteins and FILE REFERENCE: PAIO2
CURRENT APPLICATION NUMBER: US/09/925,299
CURRENT FILING DATE: 2001-08-10
PRIOR PAPLICATION NUMBER: PCT/US00/05883
PRIOR FILING DATE: 2000-03-08
PRIOR FILING DATE: 12099-03-12
NUMBER OF SEQ ID NOS: 1556
SOFTWARE: Patentin Ver. 2.0 86.0%; Score 1147.8; ilarity 91.0%; Pred. No. 4e-3 Conservative 10; Mismatches

5;

```
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/383,916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               35,030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
TELEPHONE: 703-836-6620
TELEFAX: 703-836-2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               85.9%;
90.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 703-836-2021
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 08 FILLING DATE: 07-JUN-1995 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1437 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Teskin, Robin L. REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 85.9
Best Local Similarity 90.7
Matches 1252; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1..1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                             USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                        22314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY:
                                                                                                                                                                             RESULT 3
US-10-124-905-7
                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGIH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-124-905-7
                                                                     1228
                                          qq
                                                                  Qγ
                                                                                        QQ
                                                                                                                 οy
                                                                                                                                       qq
                    ΩÝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1100 GAGGAGCAGTACAACAGCACGTACCAGGTCACCTCACCGTCCTCACCAGGAC 1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGAAAACCATCTCCAAAGCCAAAGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCC 1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATCCCAGCGACATCGCCGTGGAGTGGGAGCAATGGGCAGCCGGAGAACAACTACAAG 1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GICAAGIICAACIGGIACGIGGACGGCGIGGAGGIGCAIAAIGCCAAGACAAAAGCCGCGG 867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        928 TGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATC 987
                                                                                                                                                                                                                                                      619
                                                                                                                                                                                                                                                                                                     619
                                                                                                                                                                                                                                                                                                                               507
                                                                                                                                                                                                                                                                                                                                                                             567
                                                                                                                                                                                                                                                                                                                                                                                                     740 GTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGC 799
                                                                                                                                                                                                                                                                                                                                                                                                                            627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         748 ATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAG 807
                                              242 TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACACCGTGTGTATTACTGTACAGATT 301
                                                                                                                                                                                                     500 ANGTTACTATGGTTCGGAAAGCATCTACTACTTTGACTCTGGGGCCCAGGGAACMCTG 559
                                                                                                                                                                                                                              387
                                                                                                                                                                                                                                                                              388 AAGAGCACCTCTGGGGGCACAGCGCCCCTGGGCTGCCTGGTCAAGGACTACTTCCCCGAA 447
                                                                                                                                             GAGGAGCAGTACAACAGCACGTACCGTGTGTCAGCGTCCTCACCGTCCTGCACCAGGAC
CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGAATTGAAATCTGATAATTATGCAACAC
                                                                                                                                                                               302 TCAT----AGACTGGGGCCAGGGAACACTA
                                                                                                                                                                                                                                                                                                                               CCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                            568 TIGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           628 AAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAACTCGCGGGGCACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATG
                                                                                                                                                                                                                                GTCACCGTCTCCTCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCCTGGCACCCTCCTCC
                                                                                                                                                                                                                                                                                                                                                                             GTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGC
                                                                                ATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        988
                                                                                                                                                                                                                                                                                                                               448
                                                                                                                                                                                                                                                                                                                                                                             508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           688
                                                                                                                                                                                                                                328
                                    122
                                                          326
                                                                                  182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                               Dp
                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                               QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      οχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
           g
                                                         qq
                                                                                                      qq
                                                                                                                             δý
                                                                                                                                                   QQ
                                                                                                                                                                              οy
                                                                                                                                                                                                  Op
                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                             QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                   ŏ
                                                                                δ
```

```
AS
                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 7, Application US/10124905
Patent No. US20020166136A1
GENERAL INCOMPATION:
APPLICAMT: Anderson, Darrell R.
TITLE OF INVENTION: "MONKEY MONOCLONAL ANTIBODIES SPECIFIC
TITLE OF INVENTION: TO HUMAN B7.1 AND/OR B7.2 PRIMATIZED FORMS THEREOF,
TITLE OF INVENTION: PHARMACEUTIAL COMPOSITIONS CONTAINING, AND USE THEREOF INTITLE OF INVENTION: IMMUNOSUPPRESANTS"
NUMBER OF SEQUENCES: 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ä
                                                                                                                                                                 1460 GACAAGAGCAGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCTGAGGCTCTG 1519
1340 TATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAG 1399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                       1168 ACCACGCCTCCCGTGCTGGACTCCGACGCCTCCTTCTTCCTCTACAGCAAGCTCACCGTG
                                                                                                                                            GACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1437;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          45;
                                                                                                                                                                                                                                         1288 CACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                  1520 CACAACCACTACACGCAGAAGACCTCTCCCTGTCYCCGGGTAAATGA 1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPOTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .5e-311;
es 83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREE: BURNS, DOANE, SWECKER & MATHIS STREET: 699 Prince Street STREET: VA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1147.2;
Pred. No. 5.5e-
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           012712-131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/10/124,905 FILING DATE:
```

```
NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESS:
ADDRESSEE: BURNS, DOANE, SWECKER & MATHIS
STREET: 699 Prince Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          012712-131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US/09/948,429B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: APPLICATION NUMBER: US 08/487,550 FILING DATE: 07-JUN-1995 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                        Sequence 7, Application US/09948429B
Patent No. US2002017689Al
GENERAL INFORMATION:
APPLICANT: Anderson, Darrell R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09/383,916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              35,030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
TELEPHONE: 703-836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nucleic acid
EDNESS: not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Teskin, Robin L. REGISTRATION NUMBER: 35, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 703-836-2021 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS LENGTH: 1437 base pai
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               703-836-2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Alexandria STATE: VA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                             22314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
US-09-948-429B-7
                                                                                                                                                                                                                                                US-09-948-429B-7
                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
                                                                                                                                                                        1276 (
                                                                                                                                                 1318
1138
                        1096
                                                1198
                                                                                                                                                                                                                                      RESULT
                       οy
                                               qq
                                                                       ò
                                                                                              ρp
                                                                                                                        δ
                                                                                                                                              q
                                                                                                                                                                        δ
                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTG 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        915
                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                   TACTTCCCCGAACCGGTGACGTGTCGTGGAACTCAGGCGCCCTGACCAGGGGCGTGCAC 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      676 IGCCCAGCACCTGAACTCGCGGGGCCACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAG ,735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 897
                                                                                                                                                                                                                                                                                                                                                                                                                                      555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAAC 615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAG 957
                                                                                      180
                                                                                                                                                   357
                                                                                                                                                                                                                                      315
                                                                                                                                                                                                                                                             417
                                                                                                                                                                                                                                                                                     CAGGGAACACTAGTCACCGTCTCCTCAGCCTCCAAGGGCCCATCGGTCTTCCCCCTG 375
                                                                                                                                                                                                                                                                                                  GCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGAC 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGCGGTGGAGGTGCATAATGCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACAAAGCCGCGGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  516 ACCAAGGTGGACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCAC
                                                                                                                                                                                                                                                                                                                                                  GCACCCTCCAAGAGCACCTCTGGGGGCACAGGGGCCCTGGGCTGCCTGGGTCAAGAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTG
           58 GAGGTGCAACTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGCGGTCCCTGAGAGTC
                                                 CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                                                      CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                     241 CIGIAICTGGAAATGAACAGCCTGAAAACCGAGGACACAGCGCGTGTATTACTGTAC----
                                                                                                                                                                                                             298 GCCTATCTGCAAATGAGCAGCCTGAAAATCGAGGACACGGCCGTCTATTACTGTACTACA
                                                                                                                                                                                                                                                            358 TCCTACATTTCACATTGTCGGGGGGGTGTCTCCTATGGAGGTTACTTCGAATTCTGGGGC
                                     TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT
                                                                                                                                                                                                                                       ...-----AGATTTCATAGACTGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              916
                                                                                                                                                                                                                                                                                                                                                                                                                                                               598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 718
                                       61
                                                                                                               178
                                                                                                                                        181
                                                                                                                                                                                                                                                                                        316
                                                                                                                                                                                                                                                                                                               418
                                                                                                                                                                                                                                                                                                                                        376
                                                                                                                                                                                                                                                                                                                                                                478
                                                                                                                                                                                                                                                                                                                                                                                          436
                                                                                                                                                                                                                                                                                                                                                                                                                538
                                                                                                                                                                                                                                                                                                                                                                                                                                         496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 658
                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QΩ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                             рp
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                           Ω
                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                     Oy
Op
                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                          g
                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                      ò
             q
                                        Š
                                                              g
                                                                                         ò
                                                                                                             g
                                                                                                                                        ò
                                                                                                                                                              g
                                                                                                                                                                                ò
```

```
AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Anderson, Darrell R.

TITLE OF INVENTION: "MONKEY MONOCLONAL ANTIBODIES SPECIFIC
TITLE OF INVENTION: TO HUMAN B7.1 AND/OR B7.2 PRIMATIZED FORMS THEREOF,
TITLE OF INVENTION: PHARMACEUTIAL COMPOSITIONS CONTAINING, AND USE THEREOF
TITLE OF INVENTION: IMMUNOSUPPRESANTS"
                                                                                                                                                                                                                                                                                                                                           1378 CATGAGGCTCTGCACAACACCACTACACGCAGAAGAGCCTCTCCCCTGTCTCCGGGTAAATGA 1437
1156 AACAACTACAAGACCACGCCTCCCGTGCACTCCGACGGCTCCTTCTTCCTCTACAGC
                                                                                                                                                                                                                              1258 AACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGC
                                                                                                                                                                                                                                                                                                                   1216 AAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATG
                                                                                                                                                                                                                                                                                                                                                                                                                               CATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCCTGTCTCCGGGTAAATGA
                                                                                    GTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
```

```
TITLE OF INVENTION: IDENTIFICATION OF UNIQUE BINDING INTERACTIONS BETWEEN CERTAIN ANTIBODIES AND THE HUMAN B7 AND B7.2 CO-STIMULATORY ANTIGENS
                                                                                            1155
                                                                                                                                        1215
                                                                                                                                                                                                            1377
CCAGCCCCCATCGAGAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTG 1035
                                                                                                     1216 AAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATG 1275
                                                                                                                                                                                                                                 CATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                            1078 CCAGCCCCCATCGAGAAACCATCTCCAAAGCCAAAGGCAGCCCCGAGAACCACAGGTG
                                         GTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGGAATGGGCAGCCGGAG
                                                                                                                                       AACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                & MATHIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 35,030
REFERENCE/DOCKET NUMBER: 012712-256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/746,361
FILING DATE: 08 NOV-1996
APPLICATION NUMBER: US 08/487,550
FILING DATE: 07-JUN-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/10/073,138
FILING DATE: 13-Feb-2002
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                SWECKER
                                                                                                                                                                                                                                                                                                                                                     ĸ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                               DOANE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                 APPLICANT: ANDERSON, Darrell
HANNA, Nabil
BRAMS, Peter
                                                                                                                                                                                                                                                                                                                 Sequence 4, Application US/10073138 Publication No. US20020187146A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (703) 836-2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: DNA (genomic) FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Teskin, Robin L
                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSEE: BURNS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 1437 base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE:
                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                      US-10-073-138-4
                                                                                                                                                             1258
                                                                                                                                                                                                          1318
                                                                                                                                                                                                                                 1276
                                                                                          1096
916
                                                                                                                                       1156
                                                                                                                                                                                                                                                       1378
                                                                                                                                                                                                                                                                                          RESULT 5
                 QQ
                                        δŏ
                                                                                                           q
                                                                                                                                      Qγ
                                                                                                                                                          Dp
                                                                                                                                                                             QΥ
                                                                                                                                                                                                       pp
                                                                Q
                                                                                       οy
                                                                                                                                                                                                                                 δy
                                ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                            296
                                                                                                                                                                                                                                                                                          315
                                                                                                                                                                                                                                                                                                                                        375
                                                                                                                                                                                                                                                                                                                                                                                                                                  495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         675
                                                                                                  TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                   357
                                                                                                                                                                                                                                                                                                                417
                                                                                                                                                                                                                                                                                                                                                              477
                                                                                                                                                                                                                                                                                                                                                                                     435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  915
                                                                597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           957
                                Gaps
                                                      9
                                                                                                                                                                                                       CAGGGAACACTAGTCACCGTCTCAGCCTCCACCAAGGCCCATGGGTCTTCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 CCAGGGAAGGGGCTCGAGTGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                                                                                                           CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC----
                                                                                                                                                                                                                                                     GAGGTGCAGCTGGTGTGTGGGGGAGGCTTGGTAAAGCCCGGGGGGGTCCCTTAGACTC
                                                                                                                                                                                            CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                          -------AGATTTCATAGACTGGGGC
                                                                                                                                                                                                                                                                                                        358 TCCTACATTICACATIGTCGGGGTGGTGTCTGCTATGGAGGTTACTTCGAATTCTGGGGC
                                                                                                                                                                                                                                                                                                                                                                                  376 GCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGGGGCCCTGGGCTGCTGGTCAAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                              436 TACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                           556 CCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       616 ACCAAGGTGGACAAGAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTC
                                45;
        Length 1437
                                Indels
        DB 9;
                                83;
       Score 1147.2; DB 9 Pred. No. 5.5e-311;
                             0; Mismatches
    85.9%;
                  Best Local Similarity 90.7
Matches 1252; Conservative
        Query Match
                                                                                                                                                                                                                                                                                                                                                          418
                                                                                                                                                                                                                                                                                                                                                                                                        478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           838
                                                   Н
                                                                                                 61
                                                                                                                                                                    178
                                                                                                                                                                                           181
                                                                                                                                                                                                                 238
                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                    316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   736
                                                                                                                                                                                                                                                                                      297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                856
                                                                                                                      g
                                                                     g
                                                                                                 ò
                                                                                                                                          οχ
                                                                                                                                                             g
                                                                                                                                                                                         οy
                                                                                                                                                                                                           q
                                                                                                                                                                                                                                Qγ
                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                              οŽ
                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                  QΩ
                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                           ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                              δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ٥ý
```

```
FEATURE:
                                                                                                                                                           1258
916
                 1018
                                                   1078
                                                                     1036
                                                                                                       1096
                                                                                                                                                                            1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                          1156
                                   916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
ò
                g
                                   δ
                                                 q
                                                                    Óγ
                                                                                     qq
                                                                                                      ò
                                                                                                                     g
                                                                                                                                         δy
                                                                                                                                                          g
                                                                                                                                                                           ò
                                                                                                                                                                                           q
                                                                                                                                                                                                              δ
                                                             ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             855
                                                                                                                                                                                                                       296
                                                                                                                                                                                                                                                         315
                                                                                                                                                                                                                                                                                                                             435
                                                                                                                                                                                                                                                                                                                                                               495
                                                                                                                                                                                                                                                                                                                                                                                 597
                                                                                                                                                                                                                                                                                                                                                                                                  555
                                                                                                                                                                                                                                                                                                                                                                                                                  657
                                                                                                                                                                                                                                                                                                                                                                                                                                    615
                                                                                                                                                                                                                                                                                                                                                                                                                                                     717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              957
                                                                                       TCCIGIGCAGCIAGCGGAIICACITICAGIGGCIACIGGAIGICCIGGGICCGCCAGGCI 120
                                                                                                                                177
                                                                                                                                                   CCAGGGAAGGGGCTCGAGTGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180
                                                                                                                                                                   237
                                                                                                                                                                                     CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA 240
                                                                                                                                                                                                                                        357
                                                                                                                                                                                                                                                                          417
                                                                                                                                                                                                                                                                                            CAGGGAACACTAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTG 375
                                                                                                                                                                                                                                                                                                           477
                                                                                                                                                                                                                                                                                                                                              537
                                                              Gaps
                                                                             9
                                                                                                                                                                                                                     TGCCCAGCACCTGAACTCGCGGGGCACCGTCAGTCTTCCTTTCCCCCCAAAACCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>GAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAG</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACAAAGCCGCGGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTC
                                                                                                                                                                                             ACCAAGGTGGACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCG
                                                                             GAGGTGCAGCTGGTGGAGTCTGGGGGGGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTC
                                                                                                                          TCCTACATTTCACATTGTCGGGGTGGTGTCTCTGCTATGGAGGTTACTTCGAATTCTGGGGC
                                                                                                                                                                                                                                                                                                                              GCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGAC
                                                                                                                                                                                                                                                                                                                                                               TACTTCCCCGAACCGGTGACGGTGCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCAC
                                                                                                                                                                                                                                                                                                                                                                                 TACTICCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCAC
                                                                                                                                                                                                                                                                                                                                                                                                  ACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAAC
                                                                                                                                                                                                                                                         -----AGATTTCATAGACTGGGGC
                                                             45;
                                            Length 1437
                                                             Indels
                                            6
                                                             83;
                                           Score 1147.2; DB 9
Pred. No. 5.5e-311;
); Mismatches 83;
                  4
                  Š.
         LOCATION: 1..1437
SEQUENCE DESCRIPTION: SEQ ID
                                                             0
                                            85.9%;
90.7%;
                                                             Conservative
                                            Query Match
Best Local Similarity
Matches 1252; Conserv
                          US-10-073-138-4
                                                                                                                                                                                                                                         867
                                                                                                                                                                                                                                                                           358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              398
                                                                                                28
                                                                                                                61
                                                                                                                                  118
                                                                                                                                                    121
                                                                                                                                                                   178
                                                                                                                                                                                     181
                                                                                                                                                                                                       238
                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                             316
                                                                                                                                                                                                                                                                                                             418
                                                                                                                                                                                                                                                                                                                              376
                                                                                                                                                                                                                                                                                                                                               178
                                                                                                                                                                                                                                                                                                                                                                436
                                                                                                                                                                                                                                                                                                                                                                                 538
                                                                                                                                                                                                                                                                                                                                                                                                  96
                                                                                                                                                                                                                                                                                                                                                                                                                  598
                                                                                                                                                                                                                                                                                                                                                                                                                                     929
                                                                                                                                                                                                                                                                                                                                                                                                                                                     658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 928
                                                                                                                                                                                                                                                         297
                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                g
                                                                                                                                qq
                                                                                                                                                                  g
                                                                                                                                                                                    ò
                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                    ö
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                         ò
                                                                                ò
                                                                                                                ò
```

```
AAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATG 1275
                                                                                                                                                                                                                                                                                                                                                                                        CIGCACCAGGACTGCCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTC 975
                                                                                                                                                                   GTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAG 1155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGGTGCAGCTGGTGGAGTCTGGGGGGGGTAAAGCCCGGGGGGGTCCCTTAGACTC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGC
                                                                                                                                                                                                                                                                                                                   CCAGCCCCCATCGAGAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTG
                                                                                                                                                 33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NOVEL SECRETED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1145; DB 10;
Pred. No. 2.3e-310;
0; Mismatches 93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Genetics Institute, Inc.
APPLICANT: Genetics Institute, Inc.
APPLICANT: Genetics Institute, Inc.
APPLICANT: Genetics Institute, Inc.
APPLICANT: Genetics Institute, Inc.
APPLICANT: Fechtel, Kim
APPLICANT: Agostino, Michael J.
APPLICANT: Resnick, Richard J.
APPLICANT: Gulukota, Kamalakar.
APPLICANT: Gramm, James R.
TILE REFERENCE: GIN 6402
CURRENT APPLICATION NUMBER: US/09/822, 830A
CURRENT APPLICATION NUMBER: 60/195,604
PRIOR APPLICATION NUMBER: 60/195,604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ENCODING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US/09822830A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: misc_feature
LOCATION: 1326,1377,1440,1579,1580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; OTHER INFORMATION: n=a,c,g, or US-09-822-830A-572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85.8%;
90.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Ver. 2.0 SEQ ID NO 572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 572, Application Upatent No. US20020142952A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS: 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-822-830A-572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q ID NO 572
LENGTH: 1616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 1242;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
```

ï

```
1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1168 ACCAGGCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTG 1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 963 GTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGG 1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            867
                                                                                                                                                                                                              542
                                                                                                                                                                                                                                                    662
                                                                                                                                                                                                                                                                                                                                                AAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCACCT 687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAACTCGCGGGGCACCGTCAGTCTTCCTTCCCCCCAAAACCCCAAGGACACCCTCATG 747
                                                           388 AAGAGCACCTCTGGGGGCACAGCGCCCCTGGGCTGCCTGGTCAAGGACTACTTCCCCGAA 447
                                                                                                                                                                                                                                                                                                                                                                                 TIGGGCACCCAGACCIACAICIGCAACGIGAAICACAAGCCCAGCAACACCAAGGIGGAC 627
                                                                                                                                         ---CAGATITCATAGACIGGGCCAGGGAACACIA 327
                                                                                                                                                                                                                                                                                     CCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCT 507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGGAGCAGTACAACAGCACGTACCGTGTGGGTCAGCGTCCTCACCGTCCTGCACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1143 GAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCC
                                                                                                                                                                                                    AAGAGAGTTGAGCCCAAATCTTGTGACAAACTCACACATGCCCACCGTGCCCAGCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           748 ATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGGAGCAGTACAACAGCACGTACCGTGTGTCAGCGTCCTCACCGTCCTGCACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1083 TGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAAAGGCCTCCCAGCCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGACAACTACAAG
121 CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
              CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                        GTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTCC
                                                                                                                                                                                                                                                                                                                                    GTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGC
                                                                                            1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                     783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1263
                                                                                            241
                                                                                                                                                                                                                                                              543
                                                                                                                                                                                                                                                                                     448
                                                                                                                                                                                                                                                                                                            603
                                                                                                                                                                                                                                                                                                                                                          663
                                                                                                                                                                                                                                                                                                                                                                                   568
                                                                                                                                                                                                                                                                                                                                                                                                        723
                                                                                                                                                                                                                                                                                                                                                                                                                                628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        988
                                              181
                                                                                                                                          296
                                                                                                                                                                                        328
                                                                                                                                                                                                                                                                                                                                    508
                                                                                                                                                                                                                                                                                                           QQ
                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ρp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δλ
                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                      Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                a
                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                     δy
                                                                                                                                                                                                                                                                                                                                    ò
 ď
                                                                q
                                                                                           ò
                                                                                                                  g
                                                                                                                                      δ
                                                                                                                                                                                        ò
                     g
                                            ò
```

```
CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 AGGIGCAGCIGGIGGAGICIGGGGGAGGCITGGTAAAGCCCGGGGGGTCCCTTAGACICT 61
                                                   GACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27;
                                                                                                                                  Indels
                                                                                                                     CACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA
                                                                                                                                                                                                                                                                                                                                        Sweet, Raymond A.

TITLE OF INVENTION: Human Monoclonal Antibodies
NUMBER OF SEQUENCES: 30
CORRESPONDENCE ADDRESS:
ADDRESSEE: SmithKline Beecham Corporation
STREET: 709 Swedeland Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1141.8; DB 1
Pred. No. 1.8e-309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/10/066,895
FILING DATE: 04-Feb-2002
CLASSIFICATION: <UNKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear
SEQUENCE DESCRIPTION: SEQ ID NO: 25:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/297,344
FILING DATE: 1999-JUN-09
APPLICATION NUMBER: 60/030,149
FILING DATE: 01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: Geiger, Kathleen
REGISTRATION NUMBER: 35,880
REFERENCE/DOCKET NUMBER: P505C
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-270-5968
                                                                                                                                                                                                                                     Sequence 25, Application US/10066895 Patent No. US20020141990A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 1427 base pairs
                                                                                                                                                                                                                                                                                                         Dillon, Susan B.
Porter, Terence
                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: King of Prussia STATE: PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: 610-270-5090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                        APPLICANT: Deen, Keith C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: 25
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  85.5%;
ilarity 91.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEX: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: U.S.A. ZIP: 19046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Simi
Matches 1241;
                                                                                                                                                                                                       RESULT 7
US-10-066-895-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-066-895-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             131
                                                                                                                     1288
                  1323
                                                                                  1383
                                                   1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qγ
                                                                                  qq
                  g
                                                   ò
                                                                                                                   δy
                                                                                                                                                  g
```

5;

œ

```
RESULT 8
US-10-066-895-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-066-895-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 1241;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               131
                             1241
                                                                      1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                q
                                                                                        g
                              ò
                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCTGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTATCCCAGCGACA 1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1121 TCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCG 1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1205 TCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACAACAAGACCACGCCTCCCG 1264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1181 TGCTGGACTCCGACGGCTCCTTCTTCCTACAGCAAGCTCACCGTGGACAAGAGCAGGT 1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATG 1060
                                                                                                                                                                                                       460
                                                                                                                                                                                                                                              520
                                                                                                                                                                                                                                                                                     580
                                                                                                                                                                                                                                                                                                                             640
                                                                                                                                                                                                                                                                                                                                                                   844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACA 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCA 940
                                                                                                                                                              400
                                                                                                                                                                                                                         544
                                                                                                                                                                                                                                                                                                        664
                                                                                                                                                                                                                                                                                                                                               724
                                                                                                                                                                                                                                                                                                                                                                                                           CACCGTCAGICITCCTCTTCCCCCCAAAACCCAAGGACACCCTCAIGAICTCCCGGACCC 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       904
                                                                                                                                                                                  484
                   244
CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACAC 181
           CAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTCCAAGAGCACCTCTG
                                                                                                                                                                           CAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGA
                                                                                                                                                                                                                                                                                               CAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACT
                                       182 ATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC
                                                            245 ACTACGCAGACTCAGTGAAGGGCCGATTCACCATCTCCCAGAGACAACGCCAAGAACTCAC
                                                                                                                                                                                                        GGGGCACAGGGGCCCTGGGTGCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGT
                                                                                                                                                                                                                                              CGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGTCCT
                                                                                                                                                                                                                                                                                                                              CCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAGTGGAGC
                                                                                TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGT-----
                                                                                                                        ------ACAGATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1001
                                                                                                                                                                                     425
                                                                                                                                                                                                                           485
                                                                                                                                                                                                                                                                                                          605
                                                                                                                                                                                                                                                                                                                                                                                          725
                                                                                                                                                                                                                                                                                                                                                                                                                                                     761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      881
                                                                                                                                                                                                        401
                                                                                                                                                                                                                                                                                       521
                                                                                                                                                                                                                                                                                                                               581
                                                                                                                                                                                                                                                                                                                                                   999
                                                                                                                                                                                                                                                                                                                                                                       641
                                                                                                                                                                                                                                                                                                                                                                                                             701
                                                                                                                                                                 341
                                                                                                                                                                                                                                                461
                                                                                 242
                                                                                                                         295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                  g
                                                                                                                                                                                                        ò
                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                        QQ
                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                    g
                                        ò
                                                             g
                                                                                   õ
                                                                                                    g
                                                                                                                         ò
                                                                                                                                            a
                                                                                                                                                                 à
```

```
1325 GGCAGGAGGGAACGTCTTCTCATGATGCATGAGGCTCTGCACAACCACTACA 1384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11 AGGTGCAGCTGCTGGAGTCTGGGGGAGCCTGGTCAGCCTGGCGGGTCCCTAAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 AGGTGCAGCTGGTGGAGTCTGGGGGGGGTTGGTAAAGCCCGGGGGGTCCCTTAGACTCT
1265 TGCTGGACTCCGACGCTCCTTCTTCTTCTACAGCAAGCTCACCGTGGACAAGAGCAGGT
                                                                 GGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1427;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          87; Indels
                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Deen, Keith C.
Dillon, Susan B.
Porter, Terence C.
Sweet, Raymond A.
TITLE OF INVENTION: Human Monoclonal Antibodies
NUMBER OF SEQUENCES: 30
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1141.8; DB 1.
Pred. No. 1.8e-309;
0; Mismatches 87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: FastSEQ for Windows Version CURRENT APPLICATION DATA:
                                                                                                                                                                             1385 CGCAGAAGACCTCTCCCTGTCTCCGGGTAAATGA 1419
                                                                                                                                                      CGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/10/066,895
FILING DATE: 04-Feb-2002
CLASSIFICATION: <UNKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: P50504
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-270-5968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/297,344
FILING DATE: 1999-JUN-09
APPLICATION NUMBER: 60/030,149
FILING DATE: 01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear SEQ ID NO: 27:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Beecham (
Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Geiger, Kathleen
REGISTRATION NUMBER: 35,880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MADIUM TYPE: DISKATLE
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
                                                                                                                                                                                                                                                                                                      Sequence 27, Application US/10066895 Patent No. US20020141990A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: SmithKline STREET: 709 Swedeland CITY: King of Prussia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 610-270-5090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 27: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   85.5%;
91.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 1427 base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: U.S.A.
ZIP: 19046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
```

ä

```
Similarity
                                                                                                                                            RESULT 9
US-10-066-895-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-066-895-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Sim
Matches 1240;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           131
                                                                                 1301
           1265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δλ
           g
                                  ŏ
                                                     qq
                                                                                δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCTGGACTCCGACGGCTCCTTCTTCCTTACAGCAGCTCACCGTGGACAGAGCAGGT 1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         941 AGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCCATCGAGAAAACCATCT 1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     880
                                                                                                                                                                                                                                                                                                                                                                                         640
                                                                                                                                                                                                                                                                                                                                                                                                       760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                904
                                                                                                                                                                                                                                            460
                                                                                                                                                                                                                                                         520
                                                                                                                                                                                                                                                                                                                   604
                                                                                                                                                                                                                                                                                                                                         521 CAGGACTCTACTCCCTCAGCAGCGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGA 580
                                                                                                                                                                                                                                                                                                                                                                  664
                                                                                                                                                                                                                                                                                                                                                                                                                                                     905 GGTACGTGGACGCCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACA 964
              341 CAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTTCCTCCAAGAGCACCTCTG 400
                                                                                                                                                                                                          365 CCCCTATAGCACCGCCCTACTTTGACCACTGGGGCCAGGGAACCCTGGTCACCGTCTCCT 424
122 CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACAC 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAAAGCCAAAGGGCAGCCCCGGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1085 CCAAAGCCAAAGGCAGCCCCGAGAACCACAGGTGTACACCTGCCCCCATCCCGGGATG
                                                            CGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGGTGTCCTACAGTCCT
                                                                                                                                                                                                                                                                                                                   CGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGTCCT
                                                                                                                                                                                                                                                                                                                                                       CCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAAGTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCACCTGAACTCGCGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        701 CACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACCGTCATCCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGTACGTGGACGCGTGCAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1061 AGCTGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTATCCCAGCGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCGCCGTGGAGTGGGAAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCG
                                                                                                                                                                                                                                             GGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGT
                                                                                                                                             --ACAGATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCCT
                                               ATTATGCGGAGTCTGTGAAGGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC
                                                                                              242 TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1181
                                               182
                                                                     245
                                                                                                                    305
                                                                                                                                                                                                                   425
                                                                                                                                                                                                                                            401
                                                                                                                                                                                                                                                                   485
                                                                                                                                                                                                                                                                                                                 545
                                                                                                                                                                                                                                                                                                                                                                  605
                                                                                                                                                                                                                                                                                                                                                                                         581
                                                                                                                                                                                                                                                                                                                                                                                                                 999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        881
                                                                                                                                             295
                                                                                                                                                                                                                                                                                           461
                                                                                                                                                                                                                                                                                                                                                                                                                                         641
                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ολ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                  q
                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                g
                                                                                                                                            ò
                                                                                                                                                                                           ŏ
                                                                                                                                                                                                                                          ò
                      g
                                               à
                                                              QQ
                                                                                           δ
ò
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 AGGIGCAGCIGGIGGAGICIGGGGAGGCTIGGIAAAGCCCGGGGGGTCCCTIAGACTCT 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IDAN TIPE:
COMPOURE: IDAN COMPATILE
COMPOURE: IDAN COMPATILE
SOFTWARE: FESTERG for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/06,895
FILING DATE: 04 FEb-2002
CLASSIFICATION ATA:
APPLICATION NUMBER: 09/297,344
FILING DATE: 1999-UUN-09
APPLICATION NUMBER: 60/030,149
FILING DATE: 01-NOV-1997
ATTORNEY/AGENT INFORMATION:
NAME: Gelger, Rathleen
REGISTRATION NUMBER: 35,880
REFERENCE/DOCKET NUMBER: 950504
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                 APPLICANT: Deen, Keith C.
Dillon, Susan B.
Porter, Terence C.
Sweet, Raymond A.
TITLE OF INVENTION: Human Monoclonal Antibodies
NUMBER OF SEQUENCES: 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           85.4%; Score 1140.2; DB 12 ilarity 91.5%; Pred. No. 5e-309; Conservative 0; Mismatches 88;
                                                                                      CGCAGAAGAGCCTCTCCTCTCTCCGGGTAAATGA 1335
                                                                                                             1385 CGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear
SEQUENCE DESCRIPTION: SEQ ID NO: 20:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Beecham (
Road
                                                                                                                                                                                                                                      Sequence 20, Application US/10066895 Patent No. US20020141990A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 1427 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: SmithKline
STREET: 709 Swedeland
CITY: King of Prussia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: U.S.A.
ZIP: 19046
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: 610-270-5090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 20:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS
```

ς,

```
TCTGGGGGCACAGCGGCCTGGCTGCTGGTCAAGGACTACTTCCCCGAACCGGTGACG
                                                                                                                                                  APPLICANT: Genetics Institute,
APPLICANT: Wong, Gordon G.
APPLICANT: Clark, Hilary
                                                                                                                                                                                                                                                                                                                                                           85.1%;
larity 91.2%;
Conservative
                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .........
                                                                                                       RESULT 10
US-09-822-830A-571
                                                                                                                                                                                                                                                                                                                                           US-09-822-830A-571
                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Simi
Matches 1240;
                                                                                                                                                                                                                                                                                                        SEQ ID NO 571
LENGTH: 1617
                                                                                                                                                                                                                                                                                                                         TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                417
                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      397
       1265
                         1241
                                           1325
                                                            1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                  Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                          Dp
                                                                                                                                                                                                                                                                                                                                                                                                à
                                         qq
                        οy
                                                             Óλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1181 IGCIGGACTCCGACGGCTCCTTCTTCCTCACAGCAAGCTCACCGTGGACAAGAGCAGGT 1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        941 AGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCATCT 1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAAAGCCAAAAGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATG 1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                965 ACAGCACGTACCGGGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCA 1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1084
                                                                                                                                                                                                                                                    580
                                                                                                                                                                                                                                                                                        640
                                                                                                                                                                                                                                                                                                                          700
                                                                                                                                                                                                                                                                                                                                                             CACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCC 760
                                                                                                                                                                                                                                                                                                                                                                               844
                                                                                                                                                                                                                                                                                                                                                                                                         GGTACCTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGAGGAGCAGTACA 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCAGGACTGGCTGAATGGCA 940
                                                                                                                                                                                                                 520
                                                                                                                                                                                                                                                                       664
                                                                                                                                                                                                                                                                                                         724
                                                                                                                                                                                                                                                                                                                                           784
                                                                     294
                                                                                                                                           CAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTCCTCCAAGAGCACCTCTG 400
                                                                                                                                                                               460
                                                                                                                                                                                                544
                                                                                       364
                                                                                                                         424
                                                                                                                                                           484
                 244
                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1085 CCAAAGCCAAAAGGCAGCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACTTCCCGGCTGTCTACAGTCCT
                                                                                                                                                                                                                                                                                                 GACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCC
           CAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGA
                                                                                                                                                                                                                                                               CCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAAGTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                CTGAGGTCACATGCGTGGTGGTGGACGTGAGCCCACGAAGACCCTGAGGTCAAGTTCAACT
CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACAC
                                                                                                                  CGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACCTTCCCCGGCTGTCCTACAGTCCT
                                                                                                         ------ACAGATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCCT
                                    ATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC
                                                    ACTACTCAGACTCAGTGAAGGGCCGATTCACCATCTCCAGAGACAACGCCAAGAACTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1001
                                                                                                                                                                                                                                     545
                                                                                                                                                                                                                                                                        605
                                                                                                                                                                                                                                                                                                                                              725
                                                                                                                                                                                                                                                                                                                                                                                785
                                                                                                                                                                                                                                                                                                                                                                                                  761
                                                                                                                                                                                                                                                                                                                                                                                                                   845
                                                                                                                                                                                                                                                                                                                                                                                                                                     821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         881
                                                                                                                                                                                                                                                                                           581
                                                                                                                                                                                                                                                                                                            999
                                                                                                                                                                                                                                                                                                                             641
                                                                                                                                                                                                                                                                                                                                                               701
                                                                                                                            365
                                                                                                                                             341
 122
                   191
                                    182
                                                      245
                                                                                                           295
                                                                                                                                                              425
                                                                                                                                                                                                                    191
                                                                                                                                                                                                                                                       521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                      QQ
                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                    g
                                                                                       q
                                                                                                                           g
                                                                                                                                             ò
                                                                                                                                                            QQ
                                                                                                                                                                                ò
                                                                                                                                                                                               g
                                                                                                                                                                                                                                                     οy
                  임
                                                                       ò
                                                                                                         ò
 ò
                                    ò
```

```
APPLICANT: Clark, Hilary
APPLICANT: Forthel, Kim
APPLICANT: Agostino, Michael J.
APPLICANT: Agostino, Michael J.
APPLICANT: Agostino, Michael J.
APPLICANT: Resnick, Richard J.
APPLICANT: Resnick, Richard J.
APPLICANT: Graham, James R.
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS
FILE REPERBNCE: GIN 640-
CURRENT FILING DATE: 2001-03-29
FRIOR APPLICATION NUMBER: 60/195,604
FRIOR PAPLICATION NUMBER: 60/195,604
FRIOR PRING DATE: 2000-04-06
NUMBER OF SED ID NOS: 631
SOFTWARE PLACETING DATE: 2000-04-06
NUMBER OF SED ID NOS: 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  456
                                                                         GCCAGCAGGGGAACCTCTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTAGA 1384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAGGGAAGGGGCTCCAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----AGATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CIGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 GAGGTGCAGCTGGTGGAGGTCTGGGAGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTC
GGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1617;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1136.6; DB 10
Pred. No. 5.2e-308;
0; Mismatches 89;
                                                                                                                                                              1419
                                                                                                                              CGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                 1385 CGCAGAAGACCTCTCCCTGTCTCCGGGTAAATGA
                                                                                                                                                                                                                                                     sequence 571, Application US/09822830A patent No. US20020142952A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                              Inc.
```

ä

```
q
                                                                                                                                                                                                     δλ
                                                                                                                                                                                                                   Ω
                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                              Db
                                                                                                                                                                                                                                                                                                                                           Db
                                                                                                                                                                                                                                    òγ
                                                                                                                                                                                                                                                                  ά
                                                                                                                                                                                                                                                                                             QΥ
                                                                                                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                                                                                                               QΥ
                                                                                                                                                                                                                                                                                                                                                                          do
                                                                                                                                                                                                                                                                                                                                                                                          QY
                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                            QY
                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                         οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QΥ
                                                                                                                                                                                                                           ATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGG 1056
                                                                                                                                                                                                                                                                                                                      GATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGC 1116
                                                                                                                                                                                                                                                                                                                                                     CCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGACAAGAGC 1236
                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGTGGCAGCAGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCAC 1296
                                                                                                                                                                                                                                                                                                                                                                                                                                                 516
                                                                                                                       969
                                                                                                                                                                                  ACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCCACGAAGACCCTGAGGTCAAGTTC 816
                                                                                                                                                                                          AACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGGAGGAG 876
                                                                                                                                                                                                                                                 TACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAAT 936
                                                                                                                                                                                                                                                                               GGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACC 996
GGGGGACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGG
                         GTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAG
                                517 TCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCCACC
                                                                                      CAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAAGTG
                                                                                                                     GGGGCACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGG
                                                                                                                                                                                                                                                                                        GACATCGCCGTGGAGTGGGGAGAATGGGCAGCCGGAGAACAACTACAAGACCACGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-736-371B-20
                                                                                                                                    777
                                                                                                                                                                   837
                                                                       657
                                                                                                                                                                                                                                                                                                                             1137
                                                                                                                                                                                                                                                                                                                                                            1197
                                                                                                                                                                                                                                                                                                                                                                            1117
                                                                                                                                                                                                                                                                                                                                                                                           1257
                                                                                                                                                                                                                                                                                                                                                                                                          1177
                                                                                                                                                                                                                                                                                                                                                                                                                          1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1377
                        457
                                                                                      577
                                                                                                     717
                                                                                                                     637
                                                                                                                                                   697
                                                                                                                                                                                  757
                                                                                                                                                                                                 897
                                                                                                                                                                                                                 817
                                                                                                                                                                                                                                 957
                                                                                                                                                                                                                                                877
                                                                                                                                                                                                                                                                               937
                                                                                                                                                                                                                                                                                              1077
                                                                                                                                                                                                                                                                                                              687
                                                                                                                                                                                                                                                                                                                                             1057
                                                                                                                                                                                                                                                                                                                                                                                                                                          1237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1437
         g
                        ò
                                       g
                                                     ò
                                                                   Вb
                                                                                     QΥ
                                                                                                  g
                                                                                                                     δy
                                                                                                                                    셤
                                                                                                                                                   δy
                                                                                                                                                                  q
                                                                                                                                                                                  ò
                                                                                                                                                                                                 g
                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                ŏ
                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                           Dp
                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QQ
                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                            Qγ
                                                                                                                                                                                                                                                                                                                                                                          οy
                                                                                                                                                                                                                                                                                                                                                                                                          δy
                                                                                                                                                                                                                                                                                                                                                                                                                                         Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ω
```

APPLICANT: Waldmann, Herman APPLICANT: Frewin, Mark TILE OF INVENTION: AGLYCOSYLATED ANTIBODIES FILE REFERENCE: Waldmann

Sequence 20, Application US/09736371B Patent No. US20020131968A1 GENERAL INFORMATION:

```
339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              399
                                                                                                                                                                                                                                                                                                                                                         61 TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                121 CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACA--- 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    654
                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       175 TACTATCGAGACTCCGTGAAGGCCCGATTCACTATCTCCAGAGATAATAGCAAAAATACC
                                                                                                                                                                                                                                                                                                                 295 TTTCGGCAGTACAGTGGTGGCTTTGATTACTGGGGCCCAAGGGACCCTGGTCACCGTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           340 TCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCTCCTCCAAGAGCACCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          --------GATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  400 GGGGGCACAGCGGCCCTGGGCTGCTGAAGGACTACTTCCCCGAACCGGTGACGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAGGACTCTACTCCTCAGCAGCGTGGTGACCGTGCCTCCAGCAGCTTGGGCACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAAGTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCAAATCTTGTGACAAAACTCACACGTGCCCAGCCAGCACCTGGGG
                                                                                                                                                                                                                                                                       27;
                                                                                                                                                                                                                                             Length 1347;
                                                                                                                                                                                                                                             Score 1135; DB 10;
Pred. No. 1.4e-307;
0; Mismatches 90;
CURRENT APPLICATION NUMBER: US/09/736,371B
CURRENT FILING DATE: 2002-04-25
FRIOR APPLICATION NUMBER: 9815909.8
FRIOR FILING DATE: 1998-07-21
FRIOR FILING DATE: 1999-07-21
NUMBER OF SEQ ID NOS: 30
SOFTWARE: PATENT NOS: 30
SOFTWARE: PATENT NOS: 30
LENGTH: 1347
                                                                                                                                                                                                                                           85.0%;
ilarity 91.4%;
Conservative
                                                                                                                                           TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                  ..(1347)
                                                                                                                                                                                                                                                        Best Local Similarity
Matches 1236; Conserv
                                                                                                                                                                                    ; NAME/KEY: CDS
; LOCATION: (1)
US-09-736-371B-20
                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ÓΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
```

CCTGAGGTCACATGGGTGGTGGTGGAGGCACAGAGACCCTGAGGTCAGCTTACC B19  CCTGAGGTCACATGGGTGGTGGTGGTGGTGGTGGTGAGCTCACCTACC B19  CCTGAGGTCACATGCGTGGTGGTGGAGCGTGAGCCTGGGGTCAGGTTCACC B19  CCTGAGGTCACATGCGTGGTGGTGGAGCGTGAGCCACGAGGCTCAGGTTCACC B19  TGGTACGTGGACGGTGGTGGTGGTGGTGGAGCCACGAGGCCGGGGGGGG	24 C C C C C C C C C C C C C C C C C C C	62 CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACGGATCCTGGGTCCGCCAGGCTC 121  [1111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
ATCGCCGTGGAGTGGGAGGCAGTGGGAGAACAACTACAAGACCACGCCTCC 1179	6	195   CCTCTGGGGGCACAGCGGCCTGGTCAAGGACTACTTCCCCGAACCGGTGA
Sequence 27, Application US/0982598A Sequence 27, Application US/0982598A Patent No. US20020146750a1 GENERAL INFORMATION: APPLICANT: Henderitx, Maria P.G. APPLICANT: Henderitx, Maria P.G. TITLE OF INVENTION: MUCIN-1 Specific Binding Members and Methods of Use Thereof FILE REFERENCE: DYX-015.1 US CURRENT APPLICATION NUMBER: US/09/822,698A CURRENT FILING DATE: 2001-03-30 PRIOR APPLICATION DATE: 2000-03-30 NUMBER OF SEQ ID NOS: 112	90 OX OX OX	635 TGGAGCCCAAATCTTGTGACAAACTCACACACGCGCCGCGCCACCCTGAACTCG 694  [
DENGTH: 1356  LENGTH: 1356  LENGTH: 1356  ORGANISM: artificial sequence OFHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for amino acid sequence of OTHER INFORMATION: nucleotide sequence coding for acid sequence of OTHER INFORMATION: nucleotide sequence coding for acid sequence		875   AGTACAACAGCACGTACCGTCACCGTCCTACCACCAGGACTGGCTGA   934   934   934   934   934   934   934   934   934   934   934   934   934   934   934   934   934   934   934   935   93

```
1201
                                                                                                                                                               1315
                            1141
                                                   127
                                                                                                187
                                                                                                                                          247
                                                                                                                                                                                     295
                                                                                                                                                                                                                                  346
                                                                                                                                                                                                                                                      1435
                                                                                                                                                                                                                                                                                                                         466
                                                                                                                                                                                                                                                                                                                                                                                                                 586
                                                                                                                                                                                                                                                                                                                                                                                                                                                             646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       946
        67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1006
                          Db
                                                 QΥ
                                                                       qq
                                                                                                               g
                                                                                                                                                          QQ
                                                                                             Qγ
                                                                                                                                        Ω
                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                            QΥ
                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                        P
                                                                                                                                                                                   δy
                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                                                                                    QΣ
                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                             QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2;
                                                                                   1294
                                                                                           1256 GCAGGTGGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACC 1315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99
CTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGACAAGA
                                             1196 CTCCCGTGGACTCCGACGCTCCTTCTTCTTCTTCACAGCAAGCTCACAGAAGA
                                                                             1235 GCAGGTGGCAGCGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7 CAGCTGGTGGAGTCTGGGAGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTCTCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 6284;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                               Dillon, Susan B.
Porter, Terence C.
Sweet, Raymond A.
TITLE OF INVENTION: Human Monoclonal Antibodies
NUMBER OF SEQUENCES: 30
CORRESPONDENCE ADDRESS:
ADDRESSE: SmithKline Beecham Corporation
STREET: 709 Swedeland Road
CITY: King of Prussia
                                                                                                                           ACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                       DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: Diskette
Comporar: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1128.8; DB 12;
Pred. No. 1.2e-305;
); Mismatches 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 09/297,344
FILING DATE: 1999-JUN-09
APPLICATION NUMBER: 60/030,149
FILING DATE: 01-NOV-1997
ATTORNEY/AGENT INFORMATION:
NAME: Geiger, Kathleen
REGISTRATION NUMBER: 35,880
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P50504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NO: 14:
                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/10/066,
FILING DATE: 04-Feb-2002
CLASSIFICATION: <UNKNOWN>
                                                                                                                                                                                                     Sequence 14, Application US/10066895
Patent No. US20020141990A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE DESCRIPTION: SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: 610-270-5968
TELEFAX: 610-270-5090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 6284 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: single
                                                                                                                                                                                                                                       APPLICANT: Deen, Keith C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: 14:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          84.6%;
91.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEX: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                    STATE: PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 1231; Conserv
                                                                                                                                                                                           US-10-066-895-14
                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-066-895-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR
                                                                                                                          1295
                                  1175
                                                                                                                                                                                RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                Dp
                                                                                                                                              g
           g
                                  δ
                                                       g
                                                                           δ
                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
```

```
1374
                                                                                                                                                                                                                                                                                                     1375 ATAGCACCGCCTACTTTGACCACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCACCC 1434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1614
                                                                                                                                                                                                                                                                                                                                                                         1735 TCTTGTGACAAAACTCACAATGCCCACGTGCCCAGCACCTGAAACTCCTGGGGGACG 1794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCATCTCCAAA 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2154
                                                                        186
                                                                                                                                              246
                                                                                                                                                                                                                   294
                                                                                                                                                                                                                                                                                      345
                                                                                                                                                                                                                                                                                                                                                           405
                                                                                                                                                                                                                                                                                                                                                                                                                                 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    526 CTCTACTCCCTCAGCAGCGTGATGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTAC 585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCAAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATGAGCTG 1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTG 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     882
                                                                     AAGGGGCTCGAGTGGGTTGCTGAAATTAGAATTGAAATCTGATAATTATGCAACACATTAT
                                                                                                                                          GCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGACTGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                         AACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGTCTTCCTCTTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1195 TCAGTCTTCCTCTTCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1855 GTCACATGCGTGGTGGACGTGACCACGAAGACCCTGAGGTCAAGTTCAACTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2095 GCCAAAGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCCGGGATGAGCTG
                                                                                                                                                                                                                                                                                  -----ACAGATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCCAGCC
                                                                                                                                                                                                                                                                                                                                                        TCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTCCTCCAAGAGCACCTCTGGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCTGCAACGTGAATCACAAGCCCAGCAACAACAAGGTGGACAAGAAAGTGGAGCCCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTTGTGACAAAACTCACACGTGCCCAGCGGGCCCTGAACTCGCGGGGGCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          766 GTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACGTACCGTGTGGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCAAGAACCAGGTCAGCCTGACCTGGCTGGTCAAAGGCTTCTATCCCAGGGACATCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2155 ACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTATCCCAGCGACATCGC
                                                                                                                                                                                                           CTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

14

```
1231 AAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCAC 1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCA 1050
3278 AGCACCTCTGGGGGCACAGGGGCCCTGGGCTGCTGGTCAAGGACTACTTCCCCGAACCG 3219
                                                                                                                                                                                                                   AAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCACCTGAA 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2804 GAGCAGTACAACAGCACGTACÇGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2444 AAGAGCAGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGGTTTGAACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2504 ACGCCTCCCGTGCTGGACTCCGACGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGAC
                                                                                                                                                                                                                                                                               1171 ACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGAC
                             CTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTG
                                                                                                           3158 CTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTG
                                                                                                                                                        GGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCCAAGGTGGACAAG
                                                                                                                                                                       3098 GGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAG
                                                                                                                                                                                                                                      TCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTC
                                                                                                                                                                                                                                                                                                                                                                                                          AAGTICAACTGGTACGTGGACGGCGTGCAGATGCCAAAGACAAAGCCGCGGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1291 AACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2384 AACCACTACACGCAGAAGACCTCTCCCTGTCTCCGGGTAAATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-822-849A-103
Sequence 103, Application US/09822849A
; Petent No. US/0002045170A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Agostino, Michael
Howes, Steven H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Wong, Gordon G.
APPLICANT: Clark, Hilary
APPLICANT: Fechtel, Kim
APPLICANT: Agostino, Micha
APPLICANT: Howes, Steven H
                                                               3218
                                                                                                                                                                                                                                                     3038
                                                                                                                                                                                                                                                                                                                  2984
                                                                                                                                                                                                                                                                                                                                                751
                                                                                                                                                                                                                                                                                                                                                                               2924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                991
                                                                                                                                                          571
                                                                                                                                                                                                                      631
                                                                                                                                                                                                                                                                                    691
                                                                                                                                                                                                                                                                                                                                                                                                             811
                                  451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                          Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                           Qγ
                                                        qq
                                                                                            οy
                                                                                                                    qq
                                                                                                                                                        ÓΥ
                                                                                                                                                                                    Ω
                                                                                                                                                                                                                      Qγ
                                                                                                                                                                                                                                              Db
                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                               Db
                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                          Ωý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTHER INFORMATION: DAS sequence of Artificial Sequence: Plasmid pTRABac/9F12 OTHER INFORMATION: DNA sequence US-09-927-122-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3;
                                                                                                                                                                                                                                                           Sequence 41, Application US/09927122
| Sequence 41, Application US/09927122
| Sequence 41, Application US/09927122
| Publication No. US200300127821
| Fublication No. US200300127821
| General Information: Application No. US200300127821
| APPLICANT: SHOPES, NOBERT J. TITLE OF INVENTION: METHOD AND COMPOSITION FOR ALTERING A T CELL MEDIATED TITLE OF INVENTION: PATHOLOGY FILE REFERENCE: 032077.0002
| CURRENT APPLICATION NUMBER: US/09/927,122
| CURRENT PILING DATE: 2001-08-10
| SOFTWARR: PALENTIN VET. 2.1
| SOFTWARR: PALENTIN VET. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC--- 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3692 GAGGTGCAGCTGGTGCAGCTGGGGGAGCTTGGTACAGCCTGGGGGGTCCGTGAGACTC 3633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGGGGAACGTCTTCTCATGCTCGTGATGCATGAGGCTCTGCACAACCACTACACGCAG 1305
                                                                                                                           121 CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1518 TATTATGCAGACTCCGTGACGGCCGATTGACCATCTCCAGAGACAATTCCATGAACACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GAGGIGCAGCIGGIGGAGICIGGGGAGGCTIGGIAAAGCCCGGGGGGTCCCTIAGACIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -------AGATTTCATAGACTGGGGCCAGGGAACACTAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCACCTCTGGGGGCACAGCGGCCCTGGCTGGTCAAGGACTACTTCCCCGAACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3398 GCGGGAAAACAGTGGCTGGCCCACTACTTTGACTCCTGGGGCCAGGGAACCCTGGTC
   GACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAG
                                                                                 GACTCCGACGGCTCCTTCTTCCTCTACAGCACCTCACCGTGGACAAGAGCAGGTGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             84.0%; Score 1121.4; DB 9;
91.0%; Pred. No. 1.6e-303;
iive 0; Mismatches 81; 1
                                                                                                                                                                            AAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                          AAGAGCCTCTCCCTGTCTCCGGGTAAATGA 2424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 1242; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      391
                     2215
                                                   1186
                                                                                 2275
                                                                                                                1246
                                                                                                                                           2335
                                                                                                                                                                            1306
                                                                                                                                                                                                         2395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                 g
                                                                                                                ð
                                                                                                                                                                            ò
                                                                                                                                                                                                         g
                                                   ð
```

2745

2925

810

```
ñ
                                                                                                                                                                                                                                                                                                                                                                                        TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTGGGGGCACAGCGGCCCTGGGCTGCTCAAGGACTACTTCCCCGAACCGGTGACG 456
                                                                                                                                                                                                                                                                                                                                                        336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GAGGTGCAGCTGGTGGAGTCTGGGAGGCTTGGTAAAGCCCCGGGGGGTCCCTTAGACTC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAAGTG 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATTATGCGGAGICTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCTCAGCCTCCAGCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTCCTAGAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACCTTCCCGGCTGTCCTACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----AGATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       **MPELICANT: Gulukota, Kanalakar

**APPLICANT: Gulukota, Kanalakar

**APPLICANT: Graham, James R.

**APPLICANT: Graham, James R.

**APPLICANT: Genetics Institute, Inc.

**TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROT.

**CURRENT APPLICATION NUMBER: US/09/822,849A

**CURRENT APPLICATION NUMBER: 60/195,582

**PRIOR RILING DATE: 2000-04-06

**NUMBER OF SEQ ID NOS: 598

**SOFTWARE: PatentIn Ver. 2.0

**SEQ ID NO 103

**LENGTH: 1598
                                                                                                                                                                                                                                                                                                 Length 1598;
                                                                                                                                                                                                                                                                                                                        30;
                                                                                                                                                                                                                                                                                            Score 1105.2; DB 10; Lengt
Pred. No. 3.2e-299;
0; Mismatches 109; Indels
                                                                                                                                                                                                                                                              or
                                                                                                                                                                                                                                                                                            82.8%;
89.8%;
                                                                                                                                                                                                                                                             a,c,t,
                                                                                                                                                                                                                                                                                                         Best Local Similarity 89.8
Matches 1220; Conservative
                                                                                                                                                                                                                                    ; NAME/KEY: misc_feature
; LOCATION: 1040,1562
; OTHER INFORMATION: n =
US-09-822-849A-103
                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               714
                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                           QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ά
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  οg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ρp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δý
```

Search completed: April 26, 2003, 09:24:37 Job time: 153.024 secs

```
ATCTCCAAAAGCCAAAAGGCAGCACCACAAACCACAGGTGTACACCCTGCCCCCATCCCGG 1056
                                                                                                                                                                                                                                                                                                                       1057 GATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGC 1116
                                                                                                                                                                                                                                                                                                                                                                            1117 GACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCT 1176
                                                                                                                                                                           AGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCAC 1296
                                                          816
               AACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAG
                                                                  1374 AGGTGGCAGCAGCAGCAGCACCTTTCTCATGCTCCGTGATGAGCATGAGGCTCTGCACAACCAC
 GGGGCACCGTCAGTCTTCCTCTTCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGG
                                                     ACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCCTGAGGTCAAGTTC
                                                                                                                                                             TACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAAT
                                                                                                                                                                                                                                                                                   1134 ATCTCCAAAGCCAAAGGGAGCCCGAGAACCACAGGTGTACACCCTGCCCCATCCGG
                                                                                                                                                                                                                                                                                                                                      1254 GACATCGCCGTGGAGAGGGAGAGCAATGGGCAGCCGGAGAACAACAACAAGACCACGCCT
                                                                                                                                                                                                                 GGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCGTGCTGGACTCCGACGCCTCCTTCTTCCTTCTACAGCAAGCTCACCGTGGACAAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1297 TACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1434 TACACGCAGAAGAGCCTCTCCCTGTCCCGGGTAAATGA 1472
                          834
                                                                             894
                                                                                                        817
                                                                                                                                                             877
                                                                                                                                                                                                                                                                                                                                                                                                                                1177
269
                                                    757
                                                                                                                                                                                                                937
                                                   ά
                                                                        q
                                                                                                                            g
                                                                                                                                                                               g
                                                                                                       Ω
                                                                                                                                                           Ω
                                                                                                                                                                                                               οy
                                                                                                                                                                                                                                     Op
                                                                                                                                                                                                                                                          Qγ
                                                                                                                                                                                                                                                                                     QQ
                                                                                                                                                                                                                                                                                                                      QΥ
                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                   QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                ۵y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   οy
```

				·	
	<b></b>	·	·		
					·
·					
					.•
					·
				•	

```
Appli
Appli
Appli
Appli
Appl
Appl
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                     April 26, 2003, 04:57:16; Search time 55.2959 Seconds (without alignments) 7404.053 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                  Sequence 3, 7
Sequence 9, 8
Sequence 68,
Sequence 68,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence Sequence Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-487-550-7
US-08-157-101A-6
US-09-343-485A-3
US-08-157-101A-9
US-09-027-449-68
US-09-026-985-68
US-09-121-952A-68
US-09-121-952A-68
US-09-124-940-68
US-09-124-940-68
US-08-124-340A-68
US-08-124-340A-68
US-08-124-340A-68
US-08-124-11-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                 of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                   441362 segs, 153338381 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                             nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                               IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB seq length: 0 Maximum DB seq length: 2000000000
                                                                                                                                                                                                                        US-09-674-716B-18
1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1437
19576
1350
1350
8120
8120
8120
1655
1655
1657
1613
1739
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
18986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              score:
                                                                                                                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Total number
                                                                                             nucleic
                                                                                                                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                                           Perfect
                                                                                                                                          Run on:
```

```
Sequence 7, Application US/08487550

Patent No. 6113898
GENERAL INFORMATION:
APPLICANT: Anderson, Darrell R.
APPLICANT: Anderson, Darrell R.
TITLE OF INVENTION: "MONKEY MONOCLONAL ANTIBODIES SPECIFIC
TITLE OF INVENTION: TO HUMAN B7.1 AND/OR B7.2 PRIMATIZED FORNS THEREOF,
TITLE OF INVENTION: TO HUMAN B7.1 AND/OR B7.2 PRIMATIZED FORNS THEREOF AS
TITLE OF INVENTION: INMUNOSUPPRESANTS"
NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESS:
ADDRESSEE: BURNS, DOANE, SWECKER & MATHIS
STREET: 699 Prince Street
CITY: Alexandria
                                                Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                           Sequence
Sequence
Sequence
                                                                                                                                                                                                                                           Sequence (
Sequence (
Sequence (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1437;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/487,550
FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: TESKIN, RObin L.
REGISTRATION NUMBER: 35,030
REFERENCE/DOCKET NUMBER: 012712-131
TELECHMUNICATION INFORMATION:
TELECHMUNICATION INFORMATION:
TELECHMUNICATION INFORMATION:
TELECHMUNICATION INFORMATION:
TELECHMUNICATION INFORMATION:
TELEFRAK: 703-836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 3;
US-08-634-223-19
US-08-634-224-19
US-08-634-400-19
US-08-635-878-19
US-09-335-6978-19
US-09-335-6978-19
US-09-335-6978-19
US-08-634-224-17
US-08-634-224-17
US-08-634-28-17
US-08-634-18-17
US-08-635-878-17
US-08-635-6978-17
US-08-635-878-17
US-08-635-878-17
US-08-635-878-17
US-08-635-878-17
US-08-635-878-17
US-08-635-878-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1147.2;
                                                                                                                                                                                                                                                                                                                          ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 1437 base pairs
TYPE: nucleic acid
STRANDEDNESS: not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ); NAME_KEY: mat_peptide
; LOCATION: 1..1437
US-08-487-550-7
     1428
11428
11428
11428
11428
11428
11428
11428
11428
11428
11428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: CDS
LOCATION: 1..1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                        US-08-487-550-7
 1018.6
1018.6
1018.6
1018.6
1018.6
1017.
1017.
1017.
1017.
1017.
1017.
1017.
1017.
1017.
1017.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
```

Sequence 2, Appli Sequence 2, Appli Sequence 1, Appli Sequence 17, Appl Sequence 3, Appli Sequence 3, Appli Sequence 66, Appli Sequence 89, Appli Sequence 19, Appli

US-09-485-737B-66 US-09-485-737B-89 US-08-488-376-19

1021.4 1020.6 1020.6 1018.6

Appli Appli Appli

Sequence Sequence Sequence

a

ò a ð g ò a ò

```
AAGCTCACCGTGGACAAGAGCAGGTGGCAGGGGAACGTCTTCTCATGCTCCGTGATG 1275
                                                                                                                                                                            1318 AAGCTCACCGTGGACAAGAGAGGTGGCAGGGGAACGTCTTCTCATGCTCCGTGATG 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                     1078 CCAGCCCCCATCGAGAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTG
                                                                      GTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAG
                                                                                  AACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1576;
                                                                                                                                                                                                                                                                                                                                                                                             GENES AND EXPRESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1143.6; DB 1
Pred. No. 4.6e-263;
0; Mismatches 84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Version
                                                                                                                                                                                                                                                                                                                                 APPLICANT: KURIHARA, TATSUYA
APPLICANT: MATSUKURA, SHIGEKAZU
APPLICANT: TSURUOKA, NOBUO
APPLICANT: ARIMA, KENJI
APPLICANT: ARIMA, TRNJI
APPLICANT: NISHIHARA, TATSURO
TITLE OF INVENTION: ANTI-HBS ANTIBODY GBY
TITLE OF SEQUENCES:
CORRESSEDONDENCE ADDRESS:
ADDRESSEE: PILLSBURY, MADISON & SUTRO
                                                                                                                                                                                                                                                                                                                                                                                                                                          :: PILLSBURY, MADISON & SUTRO
1100 NEW YORK AVENUE, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9437/204199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/08/157,101A
FILING DATE: 05-APR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PATENTIN Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                  Sequence 6, Application US/08157101A Patent No. 5808032 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: TITUS, MARLANA REGISTRATION NUMBER: 35843
REFERENCE/POCKET NUMBER: 9437
TELECOMMUNICATION INFORMATION:
TELECHONE: 202-861-3711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85.7%;
91.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELERAX: 202-822-0944
TELERAX: 207-822-0944
INFORMATION FOR SEQ 1D NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 1576 base pairs
TYPE: nucleic acid
STREAMPROFICE: cinile
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 85.7
Best Local Similarity 91.6
Matches 1244; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 20005
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: WASHINGTON STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-157-101A-6
                                                                                                                                                                                                                                                                                         US-08-157-101A-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                             1258
                                                                                                                                                                   1216
                                                                                                                       1156
                                                                        1096
                         οy
                                              οqα
                                                                        Qγ
                                                                                            qq
                                                                                                                      δy
                                                                                                                                            g
                                                                                                                                                                    οy
                                                                                                                                                                                           Q
                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                         Dp
                1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTG 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          957
                                                                                                                                                                                                                                                                                                                            555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        777
                                                                                                                                                                                 181 CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA 240
                                                                                                                                                                                                                               296
                                                                                                                                                                                                                                                                               315
                                                                                                                                                                                                                                                                                                                                                                                                                        TACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCAC 495
                                                                                                                                                                                                                                                                                                                                                                                                                                               597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           657
                                                  TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                           177
                                                                                                                                   180
                                                                                                                                                           237
                                                                                                                                                                                                                                             417
                                                                                                                                                                                                                                                                                                                                                                          GCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGAC 435
                                                                                                                                                                                                                                                                                                                                                                                                 537
                Gaps
                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTC
                                                                                                                                                                                                                                                                                                                                                                                       ACCAAGGTGGACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGCCGTGGAGGTGCATAATGCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCTCACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCAC
                                                                                                 CCAGGGAAGGGGCTCGAGTGGCTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                                                                                                241 CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC----
                                                                                                                                                                                                                                                                                ------AGATTTCATAGACTGGGGC
                                                                                                                                                                                                                                                                                                       358 TCCTACATTTCACATTGTCGGGGTGGTGTCTGCTATGGAGGTTACTTCGAATTCTGGGGC
                                        GAGGTGCAGCTGGTGGAGTCTGGGGGGGGTTGGTAAAGCCCGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      45;
                Indels
     Pred. No. 6.2e-264;
); Mismatches 83;
                  ;
0
      90.78;
       Similarity 90.7
2; Conservative
       Best Local Sin
Matches 1252;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           976
                                                                                                                                                                                                                                                                                                                                                                                                                                                  538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       929
                                         -
                                                                 28
                                                                                                              118
                                                                                                                                      121
                                                                                                                                                            178
                                                                                                                                                                                                           238
                                                                                                                                                                                                                                                         867
                                                                                                                                                                                                                                                                                297
                                                                                                                                                                                                                                                                                                                                316
                                                                                                                                                                                                                                                                                                                                                      418
                                                                                                                                                                                                                                                                                                                                                                             376
                                                                                                                                                                                                                                                                                                                                                                                                   478
                                                                                                                                                                                                                                                                                                                                                                                                                           436
                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                   QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                        Dp
                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                ò
```

?

 $\sim$ 

Db 1117 ArGAGG  Qy 1118 ACATCG  Qy 1170 CGTGC  Qy 1178 CGTGC  Qy 11238 GGTGGC  Qy 1238 GGTGGC  Qy 1238 GTGGGC  Qy 1238 GTGGGC  Qy 1238 GTGGCC  Qy 1238 DTGGCC  Qy 1238 DTGGCC  Qy 1238 ACACGC  Qy 1258 ACACGC  Qy 1357 ACACGC	RESULT 3 US-09-343-485A-3 Sequence 3, Ap Patent No. 641 GENERAL INFORM APPLICANT: RE APPLICANT: RE APPLICANT: B TITLE OF INVE CURRENT APPLI	,,	Oy 1 GAGGTG Db 9493 GAGGTG Oy 61 TCCTGT Oy 115 CAGGCTY Oy 115 CAGGCTY Oy 115 CAGGCTY Oy 175 GCAACA Oy 175 GCAACA Oy 235 TCTAGAG Oy 235 TCTAGAG Oy 235 TCTAGAG Oy 235 TCTAGAG
Qy         2 AGGTGCAGCTGGGAGGAGGCTTGGTAAAGCCCGGGGGGTCCTTAGACTCT         61           IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Qy         298		

```
NEGRATION:
TI REFF, MITCHELL R.
TI REFF, MITCHELL R.
TI BARNETT, RECLARD R.
TI BARNETT, RECLARD R.
TINVENTION: NOVEL METHOD FOR INTEGRATING GENES AT SPECIFIC SITES IN INVENTION: NAMABLIAN CELLS VIA HOMOLOGOUS RECOMBINATION AND INVENTION: VECTORS FOR ACCOMPLISHING THE SAME
TERNCE: 037003-0275807
SPENCE: 037003-0275807
TELING DATE: 1999-06-30
PLICATION NUMBER: 09/023,715
LING DATE: 1999-06-30
PLICATION NUMBER: 08/819,866
LING DATE: 1997-03-14
PERGO ID NOS: 3
THE SEQUENCE SECOND SECO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3;
                                                                                                                           CTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGACAAGAGCA 1237
                                                                                                                                                                                                                                                                                                                                             CAGCAGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACT 1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAGCTGGTGGAGTCTGGGGGAGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACATTATGCGGAGTCTGTGAAGGGAAATTCACCATCTCAAGAGATGATTCAAAA 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCGTGTATTACTGT 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ICCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTAT 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCAGCTAGCG-----GATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGC 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                85.5%; Score 1141:2; DB 4; Length 19040; larity 92.0%; Pred. No. 3.6e-262; Conservative 0; Mismatches 83; Indels; 25; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MATION: Description of Artificial Sequence: Synthetic DNA MATION: referred to as "Mandy"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGAAGACCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   pplication US/09343485A
13777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rtificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              milarity
```

```
122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          10686
                                                                                                                                                                                                                                                                                                                 10026
                                                                                                                                                                                                           10146
                                                                                                                                                                                                                                       10266
                                                                                                                                                                                                                                                                                                                                                                                                                     GGAGTACAAGTGCAAGGTCTCCAACAAGGCCCTCCCAGCCCCCCATCGAGAAAACCATCTC 1001
                  9846
                                                                                                                                                                                                                                                                                                                                                                                941
                                                                                                                                                    581
                                                                                                                                                                                         641
                                                                                                                                                                                                                             701
                                                                                                                                                                                                                                                                  761
                                                                                                                                                                                                                                                                                                        821
                                     401
                                                                          461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAGCTCACCGTGGACAAGAGCAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACAC
                                                                                                                                                                                                   GCTGACCAAGAACCAGGTCAGCCTGACCTGCTCAAAGGCTTCTATCCCAGCGACAT
                                               CAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCACCTGAACTCGCGGGGGC
                                                                                                                                                                                                                                                                   ACCGTCAGTCTTCCTCTTCCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCCC
                                                                                                                                                                                                                                                                             TGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTG
                                                                                                                                                                                                                                                                                                                                            CAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGT
------AGATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCTC
                 9787 GCGAGCTTGACTACAGGGTCTGACTCCCTGGGGCCAGGGAGTCCTGGTCACGGTCTCCTC
                                                                                                               GTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACCACTTCCCGGCTGTCCTACAGTCCTC
                                                                                                                                                    AGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGAC
                                                                                                                                                                                         CTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAGTGGAGCC
                                     AGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTCCAAGAGCACCTCTGG
                                                                          GGGCACAGCGGCCCTGGCTGCTCAAGGACTACTTCCCCGAACCGGTGACGGTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10807 GCAGAAGACCTCTCCCTGTCTCCGGGTAAATGA 10840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                       942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1242
                                                         9847
                                                                                             2066
                                                                                                                                                                                                                               642
                                                                                                                                                                                                                                                                    702
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1302
                                                                            402
                                                                                                                                   1966
                                                                                                                                                    522
                                                                                                                                                                                           582
                                                                                                                                                                                                                                                                                                                                              822
                                                                                                                                                                                                                                                                                                                                                                                  882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10747
                                                                                                                                                                                                            10087
                                                                                                                                                                                                                                                 10147
                                                                                                                                                                                                                                                                                                          762
                                                                                                                                                                                                                                                                                                                           10267
                                                                                                                                                                                                                                                                                                                                                               10327
                                                                                                                                                                                                                                                                                                                                                                                                    10387
                                                                                                                                                                                                                                                                                                                                                                                                                                         10447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10627
                                       342
                                                                                                                 462
                                                                                                                                                                        10027
                                                                                                                                                                                                                                                                                       10207
                                                                                                                                                                                                                                                                                                                                                               pp
                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                      a
                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                           δ
                                                                                                                                                                                                                             ò
                   8
                                       ò
                                                        셤
                                                                            ò
                                                                                             g
                                                                                                                 ò
                                                                                                                                                      ç
```

```
355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGGGAAGGGGCTCGAGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACAC 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         62 CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACA---- 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 AGGTGCAGCTGGAGTCTGGGGAGGCGTGGTCCAGCCTGGGAGGTCCTGAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 AGGIGCAGCIGGIGGAGICIGGGGAGGCIIGGIAAAGCCCGGGGGGGICCCIIAAGACICI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            182 ATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ----GATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30; (
                                                                                                                                                          EXPRESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1140.6; DB 1;
Pred. No. 2.3e-262;
                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                            AND
                                                                                                                                                            GENES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/157,101A FILING DATE: 05-APR-1994 CLASSIFICATION: 530 ATTONNEY, AGGNT INFORMATION: NAME: TITUS, MARLANA K REGISTRATION NUMBER: 35843 REFERENCE/DOCKET NUMBER: 9437/204199 TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION: TELEFAX: 202-802-0944
                                                                                                  APPLICANT: TSURUCKA, NOBUO
APPLICANT: ARLMA, KENJI
APPLICANT: NISHIHARA, TATSURO
TITLE OF INVENTION: ANTI-HBS ANTIBODY
TITLE OF INVENTION: PLASMIDS THEREFOR
                                                                                                                                                                                                                                    ωż
                                                                                                                                                                                                                                                                                                                                                                                              OPERATING SYSTEM: PC-DOS/MS-DOS
           Sequence 9, Application US/08157101A Patent No. 5808032 GENERAL INFORMATION:
                                                                                                                                                                                                                                    MADISON
                                                                KURIHARA, TATSUYA
MATSUKURA, SHIGEKAZU
TSURUOKA, NOBUO
                                                                                                                                                                                                                                                                                                                                                          E: Floppy disk
IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 85.4%;
Best Local Similarity 91.6%;
Matches 1241; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEX: 6714627 CUCH
INFORMATION FOR ESO ID NO: 9
SEQUENCE CHARACTERISTICS:
LENGTH: 1350 base pairs
                                                                                                                                                                                                                                  SEE: PILLSBURY, : 1100 NEW YORK WASHINGTON
                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                NUMBER OF SEQUENCES: CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nucleic acid
                                                                                                                                                                                                                                                                              D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                      20005
                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-157-101A-9
                                                                      APPLICANT:
APPLICANT:
US-08-157-101A-9
                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                               COMPUTER:
```

ä

```
TCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACGGTGTACACCCTGCCCCCATCCCGGG 1057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTATCCCAGCG 1117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACT 1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACATCGCCGTGGAGTGGGAAGGAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTC 1177
                                                  637
                                                                                                                                                                                                                 877
                                                                                                                                                                                                                                                                                                                                        AGCCCAAAATCTTGTGACAAAACTCACACGTGCCCACGGTGCCCAGCACCTGGAACTCGCGG 697
                                                                                                                                                                                                                                             GGGCACCGTCAGTCTTCCTCTTCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGA 757
                                                                                                                                                                                                                                                                                      CCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCA 817
                                                                                                                                                                                                                                                                                                                                                                     ACAACAGCAGGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATG 937
                                                                                                                                                                                                                                                                                                                                                                                                             GCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAACCA 997
          338 · CCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTTCCTCCAAGAGCACCT
                                       CTGGGGGCAACAGCGGCCTGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGG
                                                                               TGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGT
                                                                                         CCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCC
                                                                                                                                                              AGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAA 1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAA 1332
                                                                                                                                                                                                      638
                                                                                458
                                                                                                                       518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1238
                                       398
                                                                                                                                                                                                                         929
                                                                                                                                                                                                                                              698
                                                                                                                                                                                                                                                                 716
                                                                                                                                                                                                                                                                                      758
                                                                                                                                                                                                                                                                                                         176
                                                                                                                                                                                                                                                                                                                                                  836
                                                                                                                                                                                                                                                                                                                                                                                                             938
                                                                                                                                                                                                                                                                                                                                                                                                                                                     866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1316
ò
                  g
                                      ò
                                                       PP
                                                                              δ
                                                                                                 q
                                                                                                                      δ
                                                                                                                                         g
                                                                                                                                                             ò
                                                                                                                                                                                qq
                                                                                                                                                                                                     δ
                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                        Db
                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                           QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
```

RESULT 5 US-09-027-449-68 : Sequence 68, Application US/09027449

```
1363 GAAGTICAGCIAGTGCAGCTGGCGGGGCTGGAGCCAGCCAGCCACTCCGTTG 1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1423 TCCTGTGCAGCTTCTGGCTACTCCTTCTCGAGTCACTATATGCACTGGGTCCGTCAGGCC 1482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACA--- 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----GATTTCATAGACTGGGGCCAGGGAACACTAGTC 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GAGGTGCAGCTGGTGGAGTCTGGGAGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
GENERAL INFORMATION:

APPLICANT: Gonzalez, Tania R.

APPLICANT: Leong, Steven R.

APPLICANT: Leong, Leonard G.

TITLE OF INVENTION: Antibody Fragment-Polymer Conjugates and

TITLE OF INVENTION: Humanized Anti-IL-8 Monoclonal Antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 8120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1082.6; DB 3;
Pred. No. 2.4e-248;
0; Mismatches 119;
                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P1085R3-2
                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/027,449
FILING DATE: 20-Feb-1998
                                                                                                                                                                                                                                                                                                                                     SYSTEM: PC-DOS/MS-DOS
WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                          FILING DAIL.

CLASSIFICATION: 435
PRIOR APPLICATION DATA:

APPLICATION NUMBER: 60/074,330

Tive DATE: 22-Jan-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 22-Jan-1998
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/038,664
FILING DATE: 21-Feb-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 34,659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-5530
                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE Genentech, Inc.
STREET: 1 DNA Way
CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81.18;
88.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: (SEQUENCE CHARACTERISTICS: LENGTH: 8120 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Love, Richard B. REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 1210; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        650/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: Nucleic Acid
STRANDEDNESS: Single
                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Linear
                                                                                                                                                                                                                                                          94080
                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                     SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JS-09-027-449-68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Óλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
```

5;

disk

Genentech, Inc.

ADDRESSEE: Genente STREET: 1 DNA Way

CITY: South San Francisco STATE: California

USA

COUNTRY:

ZIP: 94080

```
APPLICANT: Gonzalez, Tania R.
APPLICANT: Leong, Steven R.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Antibody Fragment-Polymer Conjugates and
TITLE OF INVENTION: Humanized Anti-IL-8 Monoclonal Antibodies
                                                                                                                                                                                      MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy COMPUTER: 1BM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech) CAURENW APPLICATION DATA:
APPLICATION NUMBER: US/09/026,985 FILING DATE: 20-Feb-1998
                                                                                                                                                                                                                                                     APPLICALL...
FILING DATE: 20-Feb-155C
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: LOVG, RACHARD 34,659
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 9108:
TELECOMMUNICATION; INFORMATION:
TELECOMMUNICATION;
                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                         COMPUTER READABLE FORM:
                                                                                     CORRESPONDENCE ADDRESS
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-026-985-68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1170
                                                                                                                                                                                                                             2016
                                                                                                                                                                                                                                                                              2076
                                                                                                                                                                                                                                                                                                                                 2136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2436
              ACCGTCTCCTCGGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTCCTCCTCCTCAAG 1776
                                                                                                                AAAACCATCTCCAAAGCCAAAGGGCAGCCCGAGAACCACAGGTGTACACCTGCCCCCA 1050
                                                              990
                                                                                                                                                                                                                                                                                                                                                         810
                                                                                                 510
                                                                                                                                                    570
                                                                                                                                                                                                     630
                                                                                                                                                                                                                                                                                                                     GGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAG
                                                                                                                                                                                                                                                                    CTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAAGCCCTCCCAGGCCCCCATCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTCCAAG
                                                                                                                                                                                                                                                                                                         CTCGCGGGGCACCGTCAGTCTTCCTCCTCCAAAACCCAAGGACACCTCATGATC
                                                                                                                                                                                                                                                                                                                                                          TCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTC
                                                                                                                                                                                                                                                                                                                                                                      AAGTICAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCAGCGACATCGCCGTGGAGTGGGAATGGGCAGCCGGAGAACAACTACAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTACAGCAAGCTCACGTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCAC
                                                 AGCACCTCTGGGGGCACAGCGGCCCTGGGTGTGTCAAGGACTACTTCCCCGAACCG
                                                                                                  GTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACCTTCCCGGCTGTC
                                                                                                                                                    CTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTG
                                                                                                                                                                                                      GGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCCAGCAACACCCAAGGTGGACAAG
                                                                                                                                                                                                                                                        AAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCCACCGTGCCCAGCACCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCAGTACAACAGCACGTACCGTGTGTCGTCAGCGTCCTCACCGTCCTGCACCAGGACTGG
                                                                                                                                                                                                                  AACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2677
                         1717
                                                                                                                          1837
                                                                                                                                                                            1897
                                                                                                                                                                                                                             1957
                                                                                                                                                                                                                                                                              2017
                                                                                                                                                                                                                                                                                                                                 2077
                                                                                                                                                                                                                                                                                                                                                                                  2137
                                                                                                                                                                                                                                                                                                                                                                                                          811
                                                                                                                                                                                                                                                                                                                                                                                                                                    2197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1231
                                                 391
                                                                          1777
                                                                                                                                                                                                      571
                                                                                                                                                                                                                                                                                                                                                         751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             931
 331
                                                                                                  451
                                                                                                                                                    511
                                                                                                                                                                                                                                                        631
                                                                                                                                                                                                                                                                                                         691
                                                                                                                                                                                                                                                                                                                                                                                                                                                             871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             pp
                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                        g
                                                                                                                         g
                                                                                                                                                                         g
                                                                                                                                                                                                     õ
                                                 ò
                                                                                                 ò
                                                                                                                                                    ò
                                                                                                                                                                                                                                                      ò
```

LENGTH: 8120 base pairs TYPE: Nucleic Acid STRANDEDNESS: Single

Linear

ropology:

5 1836 1657 GGGGATTATCGCTACAATGGTGACTGGTTCTTCGACGTCTGGGGTCAAGGAACCCTGGTC 1716 1363 GAAGTICAGCTAGTGCAGTCTGGCGGGGCCTGGTGCAGCCAGGGGGCTCACTCCGTTTG 1422 61 TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120 Gaps GAGGTGCAGCTGGTGGAGTCTGGGGGGGGGTTAGGTAAAGCCCGGGGGGTCCCTTAGACTC 60 121 CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 181 CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA ACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTAAG 241 CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACA------GATTTCATAGACTGGGGCCAGGGAACACTAGTC Length 8120; Indels Score 1082.6; DB 3; Pred. No. 2.4e-248; 0; Mismatches 119; Query Match
Best Local Similarity 88.6%;
Matches 1210; Conservative 331

Sequence 68, Application US/09026985 Patent No. 6133426

RESULT 6 US-09-026-985-68

```
Score 1082.6; DB 4;
Pred. No. 2.4e-248;
0; Mismatches 119;
                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
  METHODS OF TREATING WITH ANTI-IL-8 ANTIB
                                                                                                                                                                                    APPLICATION NUMBER: US/09/121,952A FILING DATE: 24-JU1-1998 CLASSIFICATION: 514
                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: 6/074330
FILING DATE: 22-JAN-1998
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/075467
FILING DATE: 20-FEB-1998
ATTORNEY/AGENI INFORMATION:
                                                                                                                                                               SOFTWARE: WinPatin (Genentech) CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                         34,659
                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: P1
TELECOMMUNICATION INFORMATION:
                                              ADDRESSEE: Genentech, Inc. STREET: 1 DNA WAY
 METHODS
                                                     STREET: 1 DNA way
CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 88.6%;
Matches 1210; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                     : 8120 base pairs
Nucleic Acid
EDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                          NAME: Love, Richard B. REGISTRATION NUMBER: 3
                      NUMBER OF SEQUENCES: 7
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                          Linear
                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS:
                                                                                          COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                         ; TOPOLOGY:
US-09-121-952A-68
                                                                                                                                                                                                                                                                                                                                                           TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                  1837 GTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACCTTCCCGGCTGTC 1896
                                                                 2676
                                                                                                                                                           CCCAGCGACATCGCCGTGGAGTGGGAGCAATGGGCAGCCGGAGAACAACTACAAGACC 1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2436
                                                                                               810
                                                                                                                                                                                                                                                                                                                                            930
                                                                                                                                                                                                                                                                                                                                                                                                   GTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCCGGCTGTC
                                                                                                                                               AAAGTGGAGCCCAAATCTTGTGACAAAACTCACATGCCCACCGTGCCCAGCACCTGAA
                                                                                                                                                                                                                                            TCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTC
                                                                                                                                                                                                                                                       GAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGG
                                                                                                                                                                                                                                                                                                                                                    2257 GAGCAGTACAACAGCACGTACCGTGTGGTCACCGTCCTCCACCGTCCTGCACCAGGACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2617 AAGAGCAGGTGGCAGGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCAC
                                                    CTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTG
                                                                                                                                                                                            CTCGCGGGGCACCGTCAGTCTTCCTCTTCCCCCAAAACCCAAGGACACCCTCATGATC
                                                                                                                                                                                                                                                                                          AAGTTCAACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAG
                                                                                                                                                                                                                                                                                                                                                                                       CTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCATCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genentech, Inc., Hsei, Vanessa
Koumenis, Iphigenia
Leong, Steven R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 68, Application US/09121952A Patent No. 6458355 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Presta, Leonard G.
Shahrokh, Zahra
Zapata, Gerardo A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-121-952A-68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                               2197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2437
      451
                                                   511
                                                                                                                                               631
                                                                                                                                                                     2017
                                                                                                                                                                                             691
                                                                                                                                                                                                                  2077
                                                                                                                                                                                                                                          751
                                                                                                                                                                                                                                                                  2137
                                                                                                                                                                                                                                                                                                                                                                                       931
                                                                                                                                                                                                                                                                                                                                                                                                                                    991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1231
                                                                                                                                                                                                                                                                                                                                        871
                                                                                                                                                                                                                                                                                                                                                                                                             2317
                                                                                                                                                                                                                                                                                                                                                                                                                                                           2377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 7
      οy
                           a
                                                                                                                                                                 QQ
                                                  ò
                                                                     g
                                                                                               δý
                                                                                                                    Ω
                                                                                                                                            οχ
                                                                                                                                                                                           οy
                                                                                                                                                                                                               Op
                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                           Db
                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pp
```

NTING INFLAMMATORY DISEASES ANTIBODY FRAGMENT-POLYMER CONJUGATES 240 1657 GGGGATTATCGCTACAATGGTGACTGGTTCTTCGACGTCTGGGGTCAAGGAACCCTGGTC 1716 CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180 ACCGTCTCCTCAGCCTCCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTCCAAG 390 391 AGCACCTCTGGGGCCACAGGGGCCCTGGGCTGGTCAAGGACTACTTCCCCGAACCG 450 9 Gaps 1 GAGGTGCAGCTGGTGGAGTCTGGGGGGGGTTGGTAAAGCCCGGGGGGGTCCCTTAGACTC 61 TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 181 CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATCAAAATCTAGA 241 CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACA------GATTTCATAGACTGGGGCCAGGGAACACTAGTC 36; Length 8120; Indels DB 4;

æ

```
APPLICANT: Zapata, Gerardo A.
TITLE OF INVENTION: METHODS OF TREATING INFLAMMATORY DISEASES
TITLE OF INVENTION: WITH ANTI-IL-8 ANTIBODY FRAGMENT-POLYMER CONJUGATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1657 GGGGATTATCGCTACAATGGTGACTGGTTCTTCGACGTCTGGGGTCAAGGAACCCTGGTC 1716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1363 GAAGTICAGCIAGTGCAGICTGGCGGTGGCCTGGTGCAGCCAGGGGGCTCACTCCGTTTG 1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 CCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         331 ACCGICICCICAGCCICCACCAAGGGCCCATCGGICITCCCCCTGGCACCCTCCTCCAAG 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 GAGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----GATTTCATAGACTGGGGCCAGGGAACACTAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 CATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 CTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACA---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 8120,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1082.6; DB 4;
Pred. No. 2.4e-248;
0; Mismatches 119;
                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/121,952
FILING DATE: 24-Jul-1998
APPLICATION NUMBER: 60/074330
FILING DATE: 22-JAN-1998
PRIOR APPLICATION NUMBER: 60/075467
FILING DATE: 20-FEB-1998
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                             US/09/234,340A
                                                                                                                                                                                                                                                                                                                                                                                                                                                             P1085R4
                                                                                                                                                                                                                 OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech) CURRENT APPLICATION DATA: US/09/234,34
                                                                                                                                                                                                                                                                                                                                                                                                                                                34,659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-5530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: 650/225-5530
TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 68:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81.1%;
88.6%;
                                                                                                STREET: 1 DNA Way
CITY: South San Francisco
STATE: California
                                                                                    Genentech, Inc
                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Love, Richard B. REGISTRATION NUMBER: 34, REFERENCE/DOCKET NUMBER:
   Shahrokh, Zahra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 8120 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 88.6
Matches 1210; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS: Single
                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic Acid
                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Linear
                                                                                                                                                                                                                                                                                           CLASSIFICATION:
                                                                                                                                                USA
                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                            ZIP: 94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
TOPOLOGY:
US-09-234-340A-68
                                                                                     ADDRESSEE:
   APPLICANT:
                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Óλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δy
                                                                                                                                                                                                                                                                                                                                                                                                                      2256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAAACCATCTCCAAAGCCACAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCA 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2496
                                                                                                                                                                                          2016
                                                                                                                                                                                                                                                 2076
                                                                                                                                                                                                                                                                                                        2136
                                                                                                                                                                                                                                                                                                                                                                2196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCGGGAGAACAACTACAAGACC 1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCCCTCCCGTGCTGGACTCCGACGCTCCTTCTTCTTCTACAGCAAGCTCACCGTGGAC 1230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCAC 1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           990
                                                                                                                                                                                                                     069
                                                                                                                                                                                                                                                                             750
                                                                                                                                                                                                                                                                                                                                     810
                                                                                                                                                                                                                                                                                                                                                                                           870
                                                                                                                                                                                                                                                                                                                                                                                                                                                   930
                                                                                                      570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGACGGTGTCGTCGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTC
                                                                                                                     GGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACCAAGGTGGAAG
                                                                                                                                                                                                                                    CTCGCGGGGGCACCGTCAGTCTTCCTTCCCCCCAAAACCCAAGGACACCCTCATGATC
                                                                                                                                                                                                                                                                                            TCCCGGACCCCTGAGGTCACATGCGTGGTGGACGTGAGCCACGAAGACCCTGAGGTC
                                                                                                                                                                                                                                                                                                                                                                  TCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCCACGAAGACCCTGAGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGCAGTACAACACCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTACAGTCCTCAGGACTCTACTCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTG
                                                                                                                                                               GGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCCAAGGTGGACAAG
                                                                                                                                                                                                                       AAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCACCTGAA
                                                                                                                                                                                                                                                                                                                                                                                           AAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAG
                                              GTGACGGTGTCGTGGACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vanessa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Genentech, Inc., Hsei,
APPLICANT: Koumenis, Iphigenia
APPLICANT: Leong, Steven R.
APPLICANT: Presta, Leonard G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 68, Application US/09234340A Patent No. 6468532 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-234-340A-68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1291
                  1777
                                                                         1837
                                                                                                                                   1897
                                                                                                                                                                                          1957
                                                                                                                                                                                                                                                    2017
                                                                                                                                                                                                                                                                                                          2077
                                                                                                                                                                                                                                                                                                                                                                2137
                                                                                                                                                                                                                                                                                                                                                                                                                        2197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2557
                                                                                                                                                                                                                       631
                                                                                                                                                                                                                                                                                                                                      751
                                                                                                                                                                                                                                                                                                                                                                                                                                                    871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  991
                                              451
                                                                                                       511
                                                                                                                                                                 571
                                                                                                                                                                                                                                                                                691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                   g
                                              ò
                                                                         셤
                                                                                                       ò
                                                                                                                                 8
                                                                                                                                                                 õ
                                                                                                                                                                                          g
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                       용
                                                                                                                                                                                                                                                                                                                                   ò
```

```
QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QΫ́
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCGGGGAGAACAACTACAAGACC 1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCAC 1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAACCATCTCCAAAGCCAAAGGGCAGCCCGAGAACCACAGGTGTACACCCTGCCCCCA 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCCGGGATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTAT 1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACGCCTCCCGTGCTGCACGCTCCTTCTTCTTCTTACAGCAAGCTCACCGTGGAC 1230
1717 ACCGTCTCCTCCACCACCACCATCGCTTTCCTTCCCTGGCACCCTCCTCCAG 1776
                                                                                                        1837 GTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTC 1896
                                                                                                                                                                                                                                                      2017 AAAGTTGAGCCCAAATCTTGTGACAAAACTCACATGCCCACCTGCCCAGCACCTGAA 2076
                                                                                                                                                                                                                                                                                                                                                                                                     2197 AAGTICAACIGGTACGIGGACGGCGIGGAGGIGCAIAAIGCCAAGACAAAGCCGCGGGAG 2256
                                                                                                                                                                                                                                                                                                                                           GTGACGGTGTCGTGGAACTCAGGCCCCTGACCAGCGGCGTGCACACTTCCCGGCTGTC
                                                                                                                                 CTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTG
                                                                                                                                                                                GGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACACCAAGGTGGACAAG
                                                                                                                                                                                                                               AAAGTGGAGCCCAAATCTTGTGACAAAACTCACATGCCCACCGTGCCCAGCACCTGAA
                                                                                                                                                                                                                                                                               CTCGCGGGGGCCACCGTCAGTCTTCCTTCCCCCCAAAACCCAAGGACACCCTCATGATC
                                                                                                                                                                                                                                                                                                                               TCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCCACGAAGACCCTGAGGTC
                                                                                                                                                                                                                                                                                                                                                                              AAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                              871 GAGCAGTACAACAGCACGTACCGTGTGGGTCACCGTCCTCACCGTCCTGCACCAGGACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              931 CTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCATCGAG
                                   AGCACCTCTGGGGGCCACAGCGGCCCTGGGCTGGTCAAGGACTACTTCCCCGAACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 9
US-09-049-672A-21
Sequence 21, Application US/09049672A,
Patent No. 6135941
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1291
                                                                                                                                                                                571
                                                                                                                                                                                                                                                                                                                                                                               811
                                                        1777
                                                                                                                                                       1897
                                                                                                                                                                                                                               631
                                                                                                                                                                                                                                                                               691
                                                                                                                                                                                                                                                                                                                               751
                                   391
                                                                                 451
                                                                                                                                 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                  g
                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                            δy
                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                            ά
                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ω
                                                        셤
                                                                                δ
                                                                                                     qq
                                                                                                                               Ω
                                                                                                                                                                               δy
                                                                                                                                                                                                 g
                                                                                                                                                                                                                             óγ
                                                                                                                                                                                                                                                                         δy
                                                                                                                                                                                                                                                                                                                              ò
```

```
CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACAC 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ---GATTTCATAGACTGGGGCCAGGGAACACTAGTCACCGTCTCCTCAG 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   105 AGGICCAGITGGIACAGICTGGGGCIGAGGIGAAGAAGCCIGGGGCCICAGIGCAGGICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   279 TCTACGCACAGAAATTCCTGGGCAGACTCACCTTGTCCGAGGACACATCTGCAGACAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       182 ATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 AGGTGCAGCTGGTGGAGTCTGGGGAGGCTTGGTAAAGCCCGGGGGGGTCCCTTAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      242 TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1655;
                                                   APPLICANT: Au-Young, Janice
APPLICANT: Corley, Meil C.
APPLICANT: Groeler, Karl J.
APPLICANT: Bughn, Mariah R.
TITLE OF INVENTION: HUMAN IMMUNE SYSTEM ASSOCIATED PROTEINS
CORRESPONDENCE: 28
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              79.9%; Score 1066.4; DB 3;
88.2%; Pred. No. 1.1e-244;
iive 0; Mismatches 136;
                                                                                                                                                                                                                                                                                                                                                                         SYSTEM: DOS
FastSEQ for Windows Version 2.0
                                                                                                                                                                                           : Incyte Pharmaceuticals, Inc
3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           39,132
iR: PF-0497 US
                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/049,672A
FILING DATE: HEREWITH
CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Cerrone, Michael C
REGISTRATION NUMBER: 39,132
REFERENCE/DOCKET WUMBER: PF
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-855-0555
                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM COMPATIBLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 1655 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                   Tang, Y. Tom
Yue, Henry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: 650-855-05:
TELEFAX: 650-845-4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS: single
Lal, Preeti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; LIBRARY: LUNGTUT11
; CLONE: 2747531
US-09-049-672A-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM COM
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                 Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IMMEDIATE SOURCE
                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                            94304
                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best_Local Sim
Matches 1192;
                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                              STREET:
                                                                                                                                                                                                                                 CITY: F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

2;

```
US-08-286-740-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGC 1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGCCAAAGGGCAGCCCCGAGAACCACGTGTGTACACCCTGCCCCCATCCCGGGATGAGC 1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTATCCCAGCGACATCG 1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     943
                                                                                                                                                                                                                                                                                                                                                                                                                                  643
                                                                                                                                                                                                                                                                                                                                                                                                                                                       703
                                                                                                                                                             463
                                                                                                                                                                                                                                                                                                                                                                                     698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1299 TGGACTCCGACGGCTCCTTCTTCCTCTATAGCAAGCTCACCGTGGACAAGAGCAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1184 TGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGACAAGAGCAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATCTTGTGACAAAACTCACACGTGCCCAGCCCAGCACCTGAACTCGCGGGGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGTGGAGTGGGAGGAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGICAGICITCCICTICCCCCCAAAACCCAAGGACACCCICAIGAICICCCGGACCCCIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COLORDO CONTROLLO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCAAGAGCACCTCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGT
                                                                                                                                                                                GGAACTCAGGCGCCCTGACCAGCGGCGTGCACCTTCCCGGCTGTCCTACAGTCCTCAG
                                                                                                                                                                                                                                                                              ACATCTGCAACGTGAATCACAAGCCCAGCAACCAAGGTGGACAAGAAAGTGGAGCCCA
                         AACATTACGATTTTTTTTTTCTTCGACGTTCTGGGGCCAGGGGACAATGGTCACCGTCTTCAG
                                                                                                                                                             GCACAGGGGCCCTGGGTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCGT
                                                                                                                                                                                                                                                                                                                                             GACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1304 AGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            884
                                                                                                                       159
                                                                                                                                                                                                                 519
                                                                                                                                                                                                                                                                                                     579
                                                                                                                                                                                                                                                                                                                                                  524
                                                                                                                                                                                                                                                                                                                                                                                               639
                                                                                                                                                                                                                                                                                                                                                                                                                                         584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     824
                                                                                                                                                                    104
                                                                                                                                                                                                                                                             464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΩD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           οý
                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                       g
                                                                                                                                                                    ò
                                                                                                                                                                                                                                                             ò
                                   ద
                                                                             ò
```

1419

RESULT 10

```
ACTAACTATAACCCTAGCGTCAAGGGCCGTATCACTATAAGTCGCGACGATTCCAAAAAC 1593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCGTCTCCTCAGCCTCCACCAAGGCCCATCGGTCTTCCCCTGGCACCTCCTCCAAG 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 TCCTGTGCAGCTAGCGGATTCACTTTCA---GTGGCTACTGGATGTCCTGGGTCCGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACACATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTCCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGACTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 GAGGTGCAGCTGGTGGAGTCTGGGGAGGCTTGGTAAAAGCCCGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----AGATTTCATAGACTGGGGCCAGGGAACACTAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                          Craig W. METHOD FOR SELECTING HIGH-EXPRESSING HOST CELLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      79.7%; Score 1063.4; DB 1;
ilarity 88.3%; Pred. No. 8.3e-244;
Conservative 0; Mismatches 121;
                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: patin (Genentech)
                                                                                                                                                                                                                                                                                                                                       SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/286,740
FILING DATE: 05-AUG-1994
CLASSIFICATION: 435
PRIOR APPLICATION: APARA:
APPLICATION NUMBER:
Sequence 3, Application US/08286740
Fatent No. 5561053
GENERAL INFORMATION:
APPLICANT: Crowley, Craig W.
TITLE OF INVENTION: METHOD FOR SELECT
TITLE OF INVENTION: HOST CELLS
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 79
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Lee, Wendy M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: 415/225-1994
TELEFAX: 415/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGIH: 6557 bases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                 94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3est Local Sim
Matches 1205;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
US-08-286-740-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ
```

disk

Kb floppy

Blvd

Inc. Bruno

USA

COUNTRY:

94080

```
TITLE OF INVENTION: HOST CELLS
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno
CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δŽ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Пр
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δλ
                                                                                                                                                                                                                                                                                                                                                                            2313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2673
                                                                                                                                                                  2013
                                                                                                                                                                                                           2073
                                                                                                                                                                                                                                                                                         2193
                                                                                                                                                                                                                                                                                                                                   2253
                                                                                                                                                                                                                                                                                                                                                                                                                                        1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACGCCTCCCGTGCTGGACTCCGACGCCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGAC 1230
                                                                      1714 ACCGTCTCCTCGGCCTCCACCAAGGGCCCATCGTCTTCCCCCTGGCACCCTCCTCCAAG 1773
                                                                                                                                                                                                                                                                                                               870
                                                             510
                                                                                                     570
                                                                                                                                             630
                                                                                                                                                                                      069
                                                                                                                                                                                                                               750
                                                                                                                                                                                                                                                                       810
                                                                                                                                                                                                                                                                                                                                                       930
                                                                                                                                                                                                                                                                                                                                                                                               990
                  AAGTICAACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAG
                                                                                                                                                                                                                                                                                                                                                                                                          AAAACCATCTCCAAAGCCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2494 CCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1231 AAGAGCAGGTGGCAGCAGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCAC
                                                            GTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACCATCCCGGCTGTC
                                                                                                    CTACAGTCCTCAGGACTCTACTCCCTCAGCGTGGTGACCGTGCCCTCCAGCAGCTTG
                                                                                                                                            AAAGTGGAGCCCAAATCTTGTGACAAAACTCACATGCCCACCGTGCCCAGCACCTGAA
                                                                                                                                                                                                                              CTCGCGGGGGCACCGTCAGTCTTCCTCTTCCCCCAAAACCCAAGGACACCCTCATGATC
                                                                                                                                                                                                                                                                      TCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTC
                                                                                                                                                                                                                                                                                                                                2194 AAGTTCAACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAG
                                                                                                                                                                                                                                                                                                                                                      GAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGG
                                                                                                                                                                                                                                                                                                                                                                                              CTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2554 ACGCCTCCCGTGCTGCACCCCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGAGCAGGTGGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1291 AACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3, Application PC/TUS9509576 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: GENENTECH, INC. TITLE OF INVENTION: METHOL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PCT-US95-09576-3
                                                                                                                        1894
                                                                                                                                                                                    631
                                                                                                                                                                                                                             691
                                                                                                                                                                                                                                                                                                              811
                                                                                                                                                                                                                                                                                                                                                     871
                                                                                                                                                                                                                                                                                                                                                                                                                 2314
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2614
                    391
                                                            451
                                                                                                                                                                                                                                                                                                                                                                                              931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1051
                                                                                                    511
                                                                                                                                                                                                                                                                      751
                                                                                                                                                                                                                                                                                                                                                                                                                                      991
                    öλ
                                      g
                                                                           q
                                                                                                   Qγ
                                                                                                                   q
                                                                                                                                       ŏ
                                                                                                                                                          Op
                                                                                                                                                                                    ò
                                                                                                                                                                                                  g
                                                                                                                                                                                                                            δy
                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                     ζ
                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                            QΥ
                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
```

METHOD FOR SELECTING HIGH-EXPRESSING

```
1713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1363 GAAGTTCAGCTGGTGGAGTCTGGCGGTGGCTGGTGCAGCCAGGGGGCTCACTCCGTTTG 1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1423 TCCTGTGCAGTTTCTGGCTACTCCATCACCTCGGATATAGCTGGAACTGGATCCGTCAG 1482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   118 GCTCCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATÄATTATGCA 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTGTGCAGCTAGCGGATTCACTTTCA --- GTGGCTACTGGATGTCCTGGGTCCGCCAG 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1654 CGAGGCAGCCACTATTCGGCGCCTGGCACTTCGCCGTGTGGGGTCAAGGAACCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GAGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTGGTAAAGCCCCGGGGGGTCCCTTAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACACATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 238 AGACTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTAC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 --------AGATTTCATAGACTGGGGCCAGGGAACACTAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 6557;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       79.7%; Score 1063.4; DB 5;
ilarity 88.3%; Pred. No. 8.3e-244;
Conservative 0; Mismatches 121;
                                                                                                                        APPLICATION NUMBER: PCT/US95/09576
                                                               PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                             798PCT
                                                                                                                                                                                                          08/286740
COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                NAME: Lee, Wendy M. REGISTRATION NUMBER: 00,000
                                                                                  SOFTWARE: patin (Genentech) CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 79 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                 APPLICATION NUMBER: 08/28 FILING DATE: 05-AUG-1994 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: 415/225-1994
TELEFAX: 415/952-9881
                                                                                                                                                                                                                                                                                                                                                                                         TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                               OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
Matches 1205; Conserv
                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PCT-US95-09576-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             297
```

ä

```
Eloppy disk
IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  78.18;
86.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 78.1
Best Local Similarity 86.6
Matches 1194; Conservative
                                                                                                   DATA
                                                                                                                                                                                                                                                                                                                                                                                         mat_peptide 93..1465
                                                                                                                                                                                                                                                                                                                                                         sig_peptide
35..92
                                            COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                     SOFTWARE: Patentin
                                                                                                                                                                                                                                                                              nucleic acid
EDNESS: both
                                                                                                                                                                                                                                                                                                                                                                                                                                  35..1465
                                                                             OPERATING SYSTEM:
    WASHINGTON
                                                                                                                                                                                                                                                                                                      linear
              D. C.
: U.S.
                                                                                                                                                                                                                                                                                TYPE: nucleic
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                MOLECULE TYPE:
                                                                                                                       FILING DATE
                                                                                                                                                                                                                                                                                                                           HYPOTHETICAL:
                                  20004
                                                                                                                                                                                                                                                                                                                                    ANTI-SENSE:
FEATURE:
                                                                                                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                     LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
             STATE: I
COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-378-939-9
                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Óλ
                                                                                                                                                                                                                                                                     2073
                                                                                                                                                                                            2133
                                                     AAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCA 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                TCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCCACGAAGACCCTGAGGTC 2193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCAC 1290
                                                                                       630
                                                                                                                               069
                                                                                                                                                                                                                 810
                                                                                                                                                                                                                                                           870
                                                                                                                                                                                                                                                                                                                                               066
CTCGCGGGGCACCGTCAGTCTTCCTCTTCCCCCAAAACCCAAGGACACCCTCATGATC
                                                                                                                                                                                                                                                                                                     GAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACC
                                           GGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCCAGCAACACCCAAGGTGGACAAG
                                                                                                                               AAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCACCTGAA
                                                                                                                                                                                                                                                          AAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGGGGGAG
                                                                                                                                                                                                                                                                                                                                              CTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACGTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 2718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1291 AACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: CROWE, JAMES SCOTT
APPLICANT: CROWE, JAMES SCOTT
TITLE OF INVENTION: PRODUCTION OF ANTIBODIES
NUMBER OF SEQUENCES: 46
ADDRESSEE: ROTHWELL, FIGG, ERNST & KURZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE: ROTHWELL, FIGG, ERNST & KURZ STREET: 555 THIRTEENTH ST. N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 9, Application US/08378939
Patent No. 5876961
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 12
US-08-378-939-9
                                                               1894
                                                                                                                                                                                                                                                                              2194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2554
                                                                                                         1954
                                                                                                                                                   2014
                                                                                                                                                                                           2074
                                                                                                                                                                                                                                   2134
                                                                                                                                                                                                                                                                                                                        2254
                                                                                                                                                                                                                                                                                                                                                                 2314
                                                                                                                                                                                                                                                                                                                                                                                                           2374
                                                                                                                                                                                                                                                                                                                                                                                                                                1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                     2434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2674
                                                                                                                              631
                                                                                                                                                                                                                751
                                                                                                                                                                                                                                                         811
                                                                                                                                                                                                                                                                                                   871
                                                                                                                                                                                                                                                                                                                                             931
                                                                                                                                                                                                                                                                                                                                                                                        991
                                                                                     571
                                                                                                                                                                       691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                     g
                                                              pp
                                                                                     δ
                                                                                                         g
                                                                                                                             à
                                                                                                                                                 셤
                                                                                                                                                                      ò
                                                                                                                                                                                         g
                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
  ò
                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

```
93 AGATGCAGGTGGTGCAGTCTGGGGCTGAAGTAAAGAAGCCTGGGTCCTCGGTGACGGTCT 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           267 CCTACTCACAGACTTCCAGGGCAGAGTCACGAGTACCGCGGACAAATCCACCAGCACAG 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGGAACACTAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATGGGTCTTCCCCCTGG 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              153 cerecaageareregageacerreageacratarerarearerateacrageargeacagece 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            213 CTGGACAAGGGCTTGAGTGGATGGGAG-----GGATCATCCCTCTTTTTGGTACACCAA 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTATGCGGAGTCTGTGAAGGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  242 TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATACTGTACAG--- 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                327 CCCACATGGAGCTGACTAGCCTGAGATCTGAGGACACGGCCGTGTATTACTGTGCGACAG 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----ATTTCATAGACTGGGGCC 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        387 ATCGCTACAGGCAGGCAAATTTTGACCGGGCCCGGGTTGGCTGGTTCGACCCCTGGGGCC 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACAC 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 AGGTGCAGCTGGTGGAGTCTGGGGGGAGGCTTGGTAAAGCCCGGGGGGGTCCCTTAGACTCT 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1617;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 2;
                                Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1042.6; DB 2;
Pred. No. 4.9e-239;
0; Mismatches 134;
                                                                                                                                           CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION WINDER: US 07/952640
FILING DATE: 01-DEC-1992
ATTONNEY/ACENT INFORMATION:
NAME: ERNST BARBARA
REGISTRATION NUMBER: 30,377
                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 1808-118
TELECOMONUSTACATION INFORMATION:
TELEPHONE: (202) 783-6040
TELEFAX: (202) 783-6031
INFORMATION FOR SEQ ID NO: 9:
SEGUENCE CHARACTERISTICS:
LENGTH: 1617 base pairs
                             Release #1.0,
                                                                                       APPLICATION NUMBER: US/08/378,939
PC-DOS/MS-DOS
```

us-09-674-716b-18.rni

```
AGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGC 1276
                                                                                                                                                                                                                                                                                                                                                          1046
                                                                                                                                                                                                                                                                                                                                                                                                                    1036
                                                                                                                                                                                                                                                                                                                                                                                                                                      1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                736
                                                                                                                                                                                                                                                                                                                                                                            916
                                                                                                                                                                                                 908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1277 ATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCCTGTCTCCGGGTAAATGA 1335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGGCACCCTGGTCACCGTCTCCTCAGCCTCCAAGGGCCCCATCGGTCTTCCCCCTGG
                   CACCCTCCTCCAAGAGCACCTCTGGGGGCACAGGGCCCCTGGGCTGCCTGGTCAAGGACT
                             ACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACA
                                                                     CCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGC
                                                                                                            CCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACA
                                                                                                                                                                             CCAAGGTGGACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGT
                                                                                                                                                                                                                   ACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACG
                                                                                                                                                                                                                                                                   AAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGA
                                                                                                                                                                                                                                                                                                         CAAAGCCGCGGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCC
                                                                                                                                                                                                                                                                                                                                                                           TGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                977 CAGCCCCCATCGAGAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                             1107 CAGCCCCCATCGAGAAACCATCTCCAAAGGGCAAGGCAGCCCCGAGAACCACAGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAATGGGCAGCCGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-487-550-11
                                                                                                                  627
                                                                                                                                                                             617
                                                                                                                                                                                                                                                                           867
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1347
                                                                             267
                                                                                                                                                         687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1407
                                                                                                                                     557
                                                                                                                                                                                                                   677
                                                                                                                                                                                                                                                         737
                                                                                                                                                                                                                                                                                                                   927
                                                                                                                                                                                                                                                                                                                                                                           917
                   377
                                                         437
                                                                                               497
                                                                                                                                                                                                                                                                                               797
                                                                                                                                                                                                                                                                                                                                     857
                                                                                                                  qq
                                                                                                                                                     q
                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                 ρp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 οž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
g
             ·δ
                                      g
                                                         ŏ
                                                                         g
                                                                                              Ω
                                                                                                                                     ŏ
                                                                                                                                                                             ò
                                                                                                                                                                                               a
                                                                                                                                                                                                                 οy
                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                           óλ
                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                               Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qγ
```

Sequence 11, Application US/08487550 Patent No. 6113898 GENERAL INFORMATION:

æ

APPLICANT: Anderson, Darrell

```
AS
 "MONKEY MONOCLONAL ANTIBODIES SPECIFIC TO HUMAN B7.1 AND/OR B7.2 PRIMATIZED FORMS THEREOF, PHARMACEUTIAL COMPOSITIONS CONTAINING, AND USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ÷,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            59 AGGTGCAGCTGCAGAGTCGGGCCCAGGACTGGTGAAGCCTTCGGAGACCCTGTCCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTGTGCAG----CTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCCAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTACTACAACCCCTCCCTCAAGAGTCAAGTCACCATTTCAACAGACGTCCAAGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACTGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           --- ACAGATTTCATAGACTGGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGGAACACTAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 AGGTGCAGCTGGTGGAGTCTGGGGGGGGGTTGGTAAAGCCCCGGGGGGGTCCCTTAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1431;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 3;
                                                                                                                                                                                                                                                    SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. 1.4e-238;
0; Mismatches 129;
                                                                                                SWECKER & MATHIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            77.9%; Score 1040.6;
86.9%; Pred. No. 1.4e
                                                  IMMUNOSUPPRESANTS
                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/487,550
FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                     IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                        REGIGTRATION NUMBER: 35,030
REFERENCE/DOCKET NUMBER: 01
TELECOMMUNICATION INFORMATION: 703-836-6620
TELEPHONE: 703-836-2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO: 11: SEQUENCE CHARACTERISTICS:
                                                                                                        : 699 Prince Street
Alexandria
                                                                                              BURNS, DOANE,
                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: Teskin, Robin L.
                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGIH: 1431 base pairs
TITLE OF INVENTION: "MON
TITLE OF INVENTION: TO H
TITLE OF INVENTION: PHAR
TITLE OF INVENTION: IMMUNIBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1..1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best_Local Similarity
Matches 1199; Conserv
                                                                                                                                                          USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
                                                                                                                                                                         22314
                                                                                              ADDRESSEE:
                                                                                                                                          STATE: VA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY:
                                                                                                                                                                                                                       COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; LOCATION:
US-08-487-550-11
                                                                                                                                                          COUNTRY:
                                                                                                           STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                             CILY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ΩD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
```

MARGARITTE, CHRISTEL

KACZOREK, MICHEL CHAABIHI, HASSAN

APPLICANT: APPLICANT:

```
q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        οy
                                                                                                                                                                                                                                                                                                                                                                               1036
                                                                                                                                                                                                                                                                                                                                                                                                1132
                                                                                                                                                                                                                                                                                                                                                                                                                 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                  1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1156
                                                                                                                                                                                                                                                                                                                   ACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGCCTCCTTCTTCCTCTACAGCA 1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGC 1276
                                                                                                                                                                                                                                                                                                                                            916
                                                                                                                                                                     892
                                                                                                                                                                                                                                                                                916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            496
                                                              652
                                                                                                                           616
                                                                                                                                                                                                736
                                                                                                                                                                                                                                   964
                                                                                                                                                                                                                                                                       856
413 CGGGAGTCCTGGTCACCGTCTCCTCAGCTAGCACCAAGGGCCCATCGGTCTTCCCCCTGG 472
                                                                                                                         CCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACA
                                                                                                                                                                                                                                   ACACCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGTGGACGTGAGCCACG
                                                                                                                                                                                                                                                                       AAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                      CAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGGAGAGCAATGGGCAGCCGGAGA
                                                                                       CCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGC
                                                                                                                                                                                               TGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCCAACAAAAAGCCCTCC
                                                     ACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACA
                                                                                                                                                            CCAAGGTGGACAAGAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGT
                                                                                                                                                                                                                                                                                                                                                                             CAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGCCAGCCCCGAGAACCACAGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                 ACACCCTGCCCCCATCCCGGGATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGGC
                 CACCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGACT
                                                                                                                                                                             713
                                                                                                                                                                                                                                                                                                                                                                                              1073
                                                                                                                                                                                                                                                                                                                                                                                                                 1037
                                                                                                                                                                                                                                                                                                                                                                                                                                  1133
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1313
                 377
                                   473
                                                    137
                                                                      533
                                                                                                        593
                                                                                                                          557
                                                                                                                                           653
                                                                                                                                                           617
                                                                                                                                                                                               677
                                                                                                                                                                                                                 773
                                                                                                                                                                                                                                   737
                                                                                                                                                                                                                                                     833
                                                                                                                                                                                                                                                                       797
                                                                                                                                                                                                                                                                                        893
                                                                                                                                                                                                                                                                                                        857
                                                                                                                                                                                                                                                                                                                          953
                                                                                                                                                                                                                                                                                                                                           917
                                                                                                                                                                                                                                                                                                                                                                              977
                                                                                       497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 14
g
                                   g
                                                                     g
                                                                                                       g
                                                                                                                                          g
                                                                                                                                                                            g
                                                                                                                                                                                              ò
                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                         Dp
                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                 ò
                                                     ò
                                                                                       ò
                                                                                                                          ò
                                                                                                                                                           ò
                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
59 AGGTCCAACTGGAGCAGTGGGGGGGGAGAGCTTGAAGCCTTCGGAGACCCTGTCCCTCA 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACAC 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAAATCTAGAC 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 AGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTGGTAAAGCCCGGGGGGGTCCCTTAGACTCT 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1418;
 Ω
                                                                       MCCLELLAND, MAIER & NEUSTADT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1039.8; DB 4; Length
Pred. No. 2.2e-238;
0; Mismatches 137; Indels
TITLE OF INVENTION: MONOCLONAL RECOMBINANT ANTI-RHESUS TITLE OF INVENTION:
                                                                                       E: P.C.
1755 SOUTH JEFFERSON DAVIS HIGHWAY, SUITE
                                                                                                                                                                                                                                                                    Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /product= "IMMUNOGLOBIN, CHAIN"
                                                                                                                                                                                                           MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPALIble
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/793,450
FILING DATE: 03-MAR-1997
CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    660-118-0
                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: F 94/10566
FILING DATE: 02-SEP-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: OBLON, NORMAN F.
REGISTRATION NUMBER: 24,618
REFERENCE/DOCKET NUMBER: 66
TELECOMMUNICATION INFORMATION
TELEPHONE: 703-413-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  77.9%;
86.7%;
                                                                       ADDRESSEE: OBLON, SPIVAK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 703-413-2220
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1418 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 1187; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        s1g_peptide
1..57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .__peptid
.__carron: 58.1418
.; OTHER INFORMATION: /p
.; OTHER INFORMATION: CH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 1418 base pai
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                          ZIP: 22202
COMPUTER READABLE FORM:
                                   NUMBER OF SEQUENCES: CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1..1418
                                                                                                                         ARLINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
                                                                                                                                                               USA
                                                                                       ADDRESSEE:
STREET: 17
                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION:
                                                                                                                                          STATE: VA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Db
```

5

Sequence 7, Application US/08793450 Patent No. 6312690 GENERAL INFORMATION: APPLICANT: EDELMAN, LENA

US-08-793-450-7

Qy	242 IGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCGTGTATTACTGTACAGATT 301	Db 1370
Qy	302 TCATAGA	RESULT 15 US-08-149-
QY	326 TAGTCACCGTCTCCACCACCACCAGGGCCCATCGGTCTTCCCCTGGCACCCTCCT 385	; Patent N ; GENERAI ; APPLJ
Qy	386 CCAAGAGCACCTCTGGGGGCACAGCGGCCTGGGCTGCTGGTCAAGGACTACTTCCCCG 445	APPLI APPLI APPLI APPLI
Qy	446 AACCGGTGACGGTGTCGTGGAACTCAGCGCCCTGACCAGCGGCGTGCACACCTTCCCGG 505	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;
Qy	506 CTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGGTGCCCTCCAGCA 565	; NUMBE ; CORRE ; ADE ; STF
Oy Dp	566 GCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGGCCAGCAACACCAAGGTGG 625	STP (
δδ	626 ACAAGAAAGTGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGGAC 685	MEI CON CON
Qy Db	686 CTGAACTCGCGGGGGACCGTCAGTCTTCCTCTTCCCCCAAAACCCAAGGACACCCTCA 745	CURRE CURRE CORRE
Qy	746 TGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGACGTGAGCCACGAAGACCCTG 805	; PRIOF
Qy Dp	806 AGGTCAAGTTCAACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGC 865	NAN REC
QY Db	866 GGGAGGAGCAGTACAACAGCACGTGTGGTCAGCGTCCTCACCGTCCTGCACGG 925	; TELEC ; TEI ; TEI ; INFORM
QV	926 ACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAAAGCCCTCCCAGCCCCCA 985	DOSS ;
O <sub>Y</sub> Db	986 TCGAGAAAACCATCTCCAAAGGCAAAGGCAGCCCGGAAACCACAGGTGTACACCCTGC 1045 	MC HY AN
Qy Dp	1046 CCCCATCCCGGGATGACCTGACCAGGTCAGCCTGACCTGCCTG	US-U8-149. Query Me Best Loc
Qy Gb	1106 TCTATCCCAGGGACATCGCCGTGGAGTGGGGAATGGGCAGCCGGAGAACAACTACA 1165 	Mat
Qy	1166 AGACCAGGCTCCGGTGCTGGACTCCGAGGCTCCTTCTTCCTCTACAGCTCACG 1225	Db 2459 Qy 62
Qy		Db 2519 Qy 122
δλ	o 0	Db 2579.

```
LICANT: LEONNED, John B.
LICANT: REWANN, Foland A.
LICANT: REFF Mitchell B.
LICANT: REFF WITCHELL B.
LICANT: RASPETTER, William H.
LE OF INVENTION: THERAPEUTTC APPLICATION OF CHIMERIC AND
LE OF INVENTION: RADIOLABELED ANTIBODIES TO HUMAN B LYMPHOCYTE RESTRICTED
LE OF INVENTION: DIFFERENTIATION ANTIGEN FOR THE TREATMENT OF B CELL
LE OF INVENTION: LYMPHOMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9. CTGGTCGGGGCCTGGAATGGATTGGAGCTATT-----TATCCCGGAATGGTGATACTT 2632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 CCTGTGCAGCTAGCGGATTCACTTTCAGTGGCTACTGGATGTCCTGGGTCCGCCAGGCTC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 CAGGGAAGGGGCTCGAGTGGGTTGCTGAAATTAGATTGAAATCTGATAATTATGCAACAC 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 AGGTGCAGCTGGTGGAGTCTGGGAGGCTTGGTAAAGCCCGGGGGGTCCCTTAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Match 77.9%; Score 1039.8; DB 1; Length 9209; ocal Similarity 86.8%; Pred. No. 3.8e-238; s. 1181; Conservative 0; Mismatches 147; Indels 33;
0 TGCACAACCAGTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATG 1418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 22313-1404

MEDIUM TYPE: READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMFOTER: IBM PC compatible
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/149,099C
CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: BURNS, DOANE, SWECKER & MATHIS
STREET: P.O. BOX 1404
SITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35,030
ER: 012712-014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OR APPLICATION DATA:
PPLICATION NUMBER: US 07/978,891
ILING DATE: 12-NOV-1992
ORNEY/AGENT INFORMATION:
                                                                                                                                 ce 3, Application US/08149099C
No. 5736137
AL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Teskin, Robin L.
REGISTRATION NUMBER: 35,030
REFERENCE/DOCKET NUMBER: 0127
ELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
TELEFAX: (703) 836-2021
DENATION FOR SEQ ID NO: 3:
DENGTH: 9209 base pairs
ITYPE: nucleic acid
                                                                                                                                                                                                           LICANT: ANDERSON, Darrell R. LICANT: HANNA, Nabil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TRANDEDNESS: single
OPOLOGY: circular
ECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATE: Virginia
DUNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      I-SENSE:
9-099C-3
```

```
2692
                                                           2752
                                                                                                                                                                                                                       2992
                                                                                         CGACTTACTACGGCGGTGACTGGTACTTCAATGTCTGGGGCGCGAGGGACCACGGTCACCG 2812
                                                                                                                                                                                                                                                                3052
                                                                                                                                                                                                                                                                                                                                             3172
                                                                                                                                 3112
                                                                                                                                                                                                                                                                                                                                                                                  3232
                                                                                                                                                                                                                                                                                                                                                                                                                                                               3352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1174
                                                                                                                                                                                                                                                                                                                                                                                                                         3292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3653 CTCCCGTGCTGGACTCCGACGACTCTTCCTCTACAGCAAGCTCACCGTGGACAAGA 3712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTACAGCAAGCTCACCGTGGACAAGA 1234
  241
                                                                                 334
                                                                                                                       394
                                                                                                                                                                                                     514
                                                                                                                                                                                                                                            574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1235 GCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACC 1294
                                         297
                                                                                                                                                               454
                                                                                                                                                                                                                                                                                    634
                                                                                                                                                                                                                                                                                                                          694
                                                                                                                                                                                                                                                                                                                                                                 754
                                                                                                                                                                                                                                                                                                                                                                                                     814
                                                                                                                                                                                                                                                                                                                                                                                                                                              874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             994
                                                ATTATGCGGAGTCTGTGAAGGGGAAATTCACCATCTCAAGAGATGATTCAAAATCTAGAC
                  2633 CCTACAATCAGAAGTTCAAAGGCCAAGGCCACATTGACTGCAGACAAATCCTCCAGCACAG
                                                                                                                                                                                                                                                      TCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCCTGGCACCCTCCTCCAAGAGCA
                                                                                                                                                             CCTCTGGGGGCACAGCGGCCTGGCTGGTCAAGGACTACTTCCCCCGAACCGGTGA
                                                                                                                                                                                                             AGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCA
                                                                                                                                                                                                                                                                                  CCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAAG
                                                                                                                                                                                                                                                                                            CCATCTCCAAAGCCCAAGCCCCCGAGAACCACAGGTGTACACCCTGCCCCATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGATGAGCTGACCAAGAACCAGGTCAGCCTGACCTGGTCAAAGGCTTCTATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACA----
                                                                               ----GATTTCATAGACTGGGGCCAGGGAACACTAGTCACCG
                                                                                                                                                                                                    CGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTAC
                                                                                                                                                                                                                                                                                                                          TGGAGCCCAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCCAGCACCTGAACTCG
                                                                                                                                                                                                                                                                                                                                                                CGGGGGCACCGTCAGTCTTCCTCTTCCCCCAAAACCCAAGGACACCCTCATGATCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                   GGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAAGCCCTCCCAGCCCCCATCGAGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCGACATCGCCGTGGAGTGGGAGTGGGCAATGGGCAGCGGAGAACAACTACAAGACCACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAACTGGTACGTGGACGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGA
                                                                                                  2753
                                                                                                                                       2813
                                                                                                                                                                              2873
                                                                                                                                                                                                                       2933
                                                                                                                                                                                                                                                              2993
                                                                                                                                                                                                                                                                                                    3053
                                                                                                                                                                                                                                                                                                                                                                                                   755
                                                                                                                                                                                                                                                                                                                                                                                                                       3233
                                                                                                                                                                                                                                                                                                                                                                                                                                                             3293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1055
182
                                      242
                                                                                                                    335
                                                                                                                                                             395
                                                                                                                                                                                                                                                                                  575
                                                                                                                                                                                                                                                                                                                         635
                                                                                                                                                                                                                                                                                                                                                                                                                                           815
                                                                             298
                                                                                                                                                                                                  455
                                                                                                                                                                                                                                            515
                                                                                                                                                                                                                                                                                                                                                              695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   995
                 g
                                                       g
                                                                                                g
                                                                                                                                                                          qq
                                                                                                                                                                                                                   qq
                                     ò
                                                                             ò
                                                                                                                    ò
                                                                                                                                      g
                                                                                                                                                           ò
                                                                                                                                                                                              ò
                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                            Ω
                                                                                                                                                                                                                                                                                               QQ
                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```